DOCUMENT RESUME

ED 245 660 IR 011 149

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TITLE The Lesotho Distance Teaching Centre: Five Years' Learning. IEC Broadsheets on Distance Learning No. 16.
INSTITUTION International Extension Coll., Cambridge (England).
REPORT NO ISBN-0-903632-19-5
PUB DATE 81
NOTE 83p.
AVAILABLE FROM International Extension College, 18 Brooklands Ave., Cambridge, CB2 2HN, England (4 British pounds per copy).
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Adult Education; Correspondence Schools; Costs; *Developing Nations; *Distance Education; Extension Education; Foreign Countries; *National Programs; *Nontraditional Education; Organization; *Program Development; Rural Education; Secondary Education
IDENTIFIERS *Lesotho

ABSTRACT

This report describes the activities of the first 5 years of the Lesotho Distance Teaching Center, which uses distance teaching methods to bring education to more people in Lesotho. Also described are the Center's internal organization, its relationship to other organizations in Lesotho, its costs, and some evaluation findings. Background information includes descriptions of Lesotho, its educational system, formation of the center, and some of its initial development problems. Ways individuals are helped by the center are discussed, including work with private examination candidates, rural people, other organizations using distance teaching methods, and young people needing to develop literacy and numeracy skills. Management topics addressed include the design, distribution, organization, and evaluation of learning materials; and how the center has coped with such problems as shortage of qualified staff, lack of training opportunities within the country, limited resources, and various staff divisions (expatriate/local, senior/junior). Financial matters discussed include government support, income, costs, and donors. A final chapter looks at the benefits of a distance teaching unit and offers advice on establishing such a unit. List of donors and of Lesotho Distance Teaching Center publications and research reports (up to December 1979) are included. (LMM)

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THE LESOTHO DISTANCE TEACHING CENTRE: FIVE YEARS' LEARNING

Paud Murphy

IR011149

International Extension College 1981

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The International Extension College

The International Extension College exists to provide information and advice on distance teaching: a technique of education combining the use of printed material, broadcasts and face-to-face tuition. IEC is particularly interested in the use of distance teaching for nonformal and rural education. It is a nonprofit organisation registered as a charity under English law, and has links with the National Extension College and the Department of Education in Developing Countries of the University of London Institute of Education.

IEC works with governments and universities in third world countries to provide information, consultancy and training for distance-teaching projects. At the request of the governments concerned, we have started colleges in Mauritius, Botswana and Lesotho, and worked with the University of Lagos, Nigeria, in establishing a Correspondence and Open Studies Unit.

The literature on distance teaching is growing, but it is often hard to find. As a result, educators planning to use correspondence and broadcast teaching to stretch resources and increase opportunities have little chance of benefiting from the experience of others. IEC's *Broadsheets on distance learning* give practical advice and information in the use of distance teaching, drawn mainly from experience in the third world. They focus on rural education, on the techniques of distance teaching, and on case studies of distance-teaching projects. A list of titles in the series will be found on the last page of this *Broadsheet*.

International Extension College
18 Brooklands Avenue
Cambridge CB2 2HN
England
ISBN: 0 903632 19 5

Printed by the Russell Press Ltd, 45 Gamble Street, Nottingham NG7 4ET.

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This Broadsheet is dedicated to Odilon Seheri, whose recent tragic death is a great loss for education in Lesotho.

Introduction

The provision of education is a major priority for developing countries. The need to prepare a rapidly increasing young population for the world of the 1990s is obvious, and many countries devote more than 30% of their recurrent budget to education through schools and third-level institutions. Despite that, universal primary education is a far-off ideal for most and only a minority of young people receive post-primary education.

For many countries, education has been synonymous with what happens in schools, and the provision of resources to help the largely illiterate adult population cope with a frighteningly changing world has been minimal. Little determined planning has gone into the co-ordination of education for health, for increased agricultural production and for family life. Ministries of Health with health care systems to administer and the demands of highly trained professionals to meet focus little attention on education. Ministries of Agriculture concentrate on technical innovation. Education for family life is often left to non-governmental organisations.

If education in schools is poor and education out of schools is uncoordinated, there is no provision for the same education to take place both in and out of school. The two systems, schooling and out-of-school learning, have been kept apart, with schooling the responsibility of the Ministry of Education and all other education parcelled out — the recipient of the parcel being decided by the topic.

One new institution in Lesotho which is helping to bridge the gap between education in schools and that provided out of schools is the Lesotho Distance Teaching Centre, which began work in 1974. Its stated aim was to use distance-teaching methods to bring education to more people in Lesotho. This book looks at the work of the Centre over its first five years. For three-and-a-half of those years I was director of the Centre, and much of this book is based on that experience.

The book attempts to provide a review of the activities of the Centre, its internal organisation, its relationship to other organisations in Lesotho, its costs and some of its findings. In writing it, as in being director of the Centre, I have found it very difficult to find the right

balance between the educational intentions and the administrative practice of the Centre. As director, I found that I had to keep the educational aims constantly in mind and occasionally press on towards achieving those aims, even where the administrative support was lacking. I found it very difficult not to attempt to achieve valuable educational aims because the administration might not cope and impossible to stop an attempt already begun to achieve an educational aim on purely administrative grounds.

The ability to provide sound planning and a good administrative system to carry out educational work is the most valuable asset any organisation can have. One of my hopes in writing this book is to highlight the difficulties we had in marrying education and administration in the Centre, and with hindsight to suggest how others might avoid some of the mistakes.

I also hope to convey some of the sense of change within a growing institution — as new projects were undertaken and the practices of old projects amended, while remaining committed to the original aim of using distance-teaching methods *better* to bring education to *still* more people in Lesotho.

In reading the book, some of my prejudices — against expatriates who take from a country but don't give, dividing education into sections such as rural education or nonformal education, the insensitivity of some donor bodies — may become obvious. I have cut out a great deal of what I originally wrote, so I make no apologies for what remains.

I must also accept the responsibility for any mistakes, while acknowledging the contributions of Kenneth Tsekoa, my successor as director of the Centre, and Theo Derkx, the projects co-ordinator. Without their help, Chapter 4 would have far fewer costings. I must also thank the staff of the Centre, who helped to make my stay in Lesotho happy and enriching. Finally, I should like to thank Philip Baker, Solomon Inquai, Tennyson Khatala, Roger Mitton and Montšeng Mofokeng, who read the manuscript and made valuable comments, and Jo Bradley, who prepared it for printing.

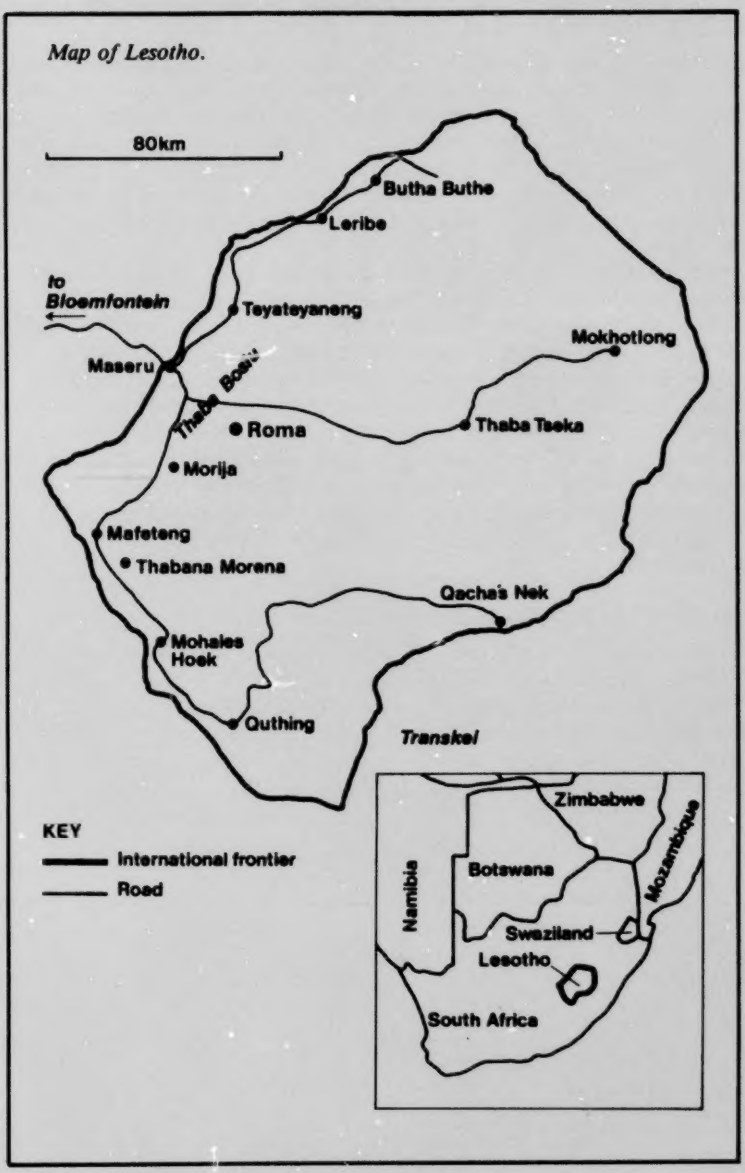
A note on distance teaching

Probably the best known example of a distance-teaching system is that used by commercial correspondence colleges or by the Open University in Britain to help adults to study for examinations outside school. Other, in many ways more important, examples are the radio schools of South America, the farm forums in Canada and India, the radio campaigns of Tanzania and Botswana, and the extension activities of many Ministries of Agriculture and, to a lesser extent, of Rural Development and Health.

The important point about distance-teaching systems is that the methods used in teaching are usually organised far away from the learner. Consequently the bulk of the teaching is not carried out by people lecturing or tutoring in person, but by printed materials (programmed text books, correspondence courses, self-instructional booklets, learning games, etc.), or broadcasts (radio, television) or through other devices (computer-assisted instruction, tape recordings, slide projections, etc.). In distance-learning systems people are usually used to organise learners and to help them to learn from print or radio. Sometimes people are used to teach, but only as one part of a combination of teaching methods and usually they teach a very small part of the subject matter.

In-school and out-of-school education

In preference to using 'formal', 'nonformal' and 'informal' to describe systems of education, I have chosen to write about education 'in school' and education 'out of school'. 'Education out of school' may not be a sufficiently precise term for some purposes, but it is adequate to describe much of the work of the Lesotho Distance Teaching Centre and it has the distinct advantage of being simple.


Map of Lesotho.
80km
Butha Buthe
Leribe
to
Bloemfontein
Teyateyaneng
Mokhotlong
Maseru
Thaba Bosiu
Roma
Thaba Tseka
Morija
Mafeteng
Thabana Morena
Qacha's Nek
Mohales
Hoek
Quthing
Transkei
KEY
International frontier
Road
Zimbabwe
Namibia
Botswana
Mozambique
Swaziland
Lesotho
South Africa

Chapter 1: Background

Lesotho

Lesotho is unique in many ways. It is about the same size as Belgium, and yet is entirely surrounded by the territory of another country; the fact that that country is South Africa has particular significance. It has the highest low point of any country in the world, starting 1 500 metres above sea level and rising to 3 000. Half the male labour force works abroad, in South Africa.

It stands out among African countries: the literacy level in Sesotho (the language of Lesotho) is very high; there is universal primary education; its people acknowledge one common nationhood and speak one language; and, for an African country, its winters are very cold indeed.

That Lesotho exists at all as a nation is due to its inhospitable terrain and the genius of its founder, Chief Moshoeshoe I. In times of danger, Moshoeshoe brought his people (the Basotho; one is a Mosotho) up onto Thaba Bosiu, a plateau with few routes to the top. There he withstood the onslaught of Boers, Zulus and British. He finally managed to get Victoria, 'the Great Queen', to offer her protection to his people. Today King Moshoeshoe II is the head of state. On becoming independent of Britain in 1966, the people of Lesotho elected the national party, led by Chief Leabua Jonathan, to form the first government. The constitution was suspended during subsequent elections in 1970, and all political activities forbidden. There have been no elections since. As a member of the United Nations, Lesotho has emphasised its political independence by condemning South Africa's apartheid policies and refusing to recognise the 'independent' homelands of Transkei and Boputhatswana, even though Transkei borders on Lesotho, and one of Boputhatswana's many pockets of land is only 70 kilometres away, on the main road between Maseru and Bloemfontein.

Lesotho has also established its own currency, the Maloti. The Maloti exchanges at par with the South African Rand, which still circulates freely. (On 22 January 1980, 1M = £0.54.) But, however politically independent it may be, economically Lesotho is certainly not independent of South Africa. Most of its imports come from there. Despite an economy heavily dependent on agriculture, it is not self-

sufficient in food production and depends on South Africa to supply the maize and sorghum which its people need. Almost all its other imports come from South Africa and its few exports, mainly wool and mohair, go to — or, in a few cases, through — South Africa. The value of Lesotho's imports is about ten times the value of its exports. The remittances of the 150 000 Basotho men working in South Africa's mines, together with foreign aid and Lesotho's earnings from a customs union agreement with South Africa, Botswana and Swaziland, help to balance its payments.

Inside Lesotho about 25 000 people are in paid employment, mostly in government service. Although much of the land is not suitable for agriculture, with only 13% or 400 000 hectares cultivated, it is still the country's main industry. Production, however, is mainly for subsistence. The basis of the land tenure system in Lesotho is that the king holds the land in trust for the nation. Chiefs allocate the right to use land to families. The lowlands of Lesotho, stretching in a crescent from Quthing in the extreme south to Butha Buthe in the north, are planted with staple crops in summer, while the mountains to the west, occupying about two-thirds of Lesotho's area, are used as grazing land for cattle, sheep and goats. The animals are despatched to the mountains under the care of herdboys for the summer. When the harvest is over the animals and the herdboys come back to the lowlands. Overstocking and overgrazing have created a very serious soil erosion problem, and ecologists forecast that Lesotho will have no good soil by the end of this century.

Most of the 1.2 million Basotho live in the lowlands crescent, which has an arterial tar road and the major towns. Maseru, the capital, has about 50 000 people; other towns have considerably fewer. Attempts to open up the mountains are under way, with good gravel roads connecting the three main centres, Mokhotlong, Qacha's Nek and Thaba Tseka, to the lowlands. A national bus service reaches the main centres, but transport in many parts is by Basotho pony; the Basotho pride themselves on their riding ability. Lesotho Airways flies to a number of the mountain towns and also serves Johannesburg. Recently it began a service to Swaziland, Botswana and Mozambique.

Lesotho's tourist industry is mainly concentrated on Maseru. Each weekend large numbers of South Africans come from Johannesburg and Bloemfontein to stay in Maseru's new hotels, to gamble in the casino and see films that are banned in South Africa. During the 1970s, four new hotels were built in Maseru — the latest being a Hilton.

The climate is very healthy, with the rains and warm summers coinciding from October to March and the sunny dry days and sharply cold nights of winter concentrated in the months of June, July and August.

Despite its many problems, Lesotho is developing and there are many

hopeful signs. A diamond mine has opened at Letšeng-La-Terai in the north. A new international airport is planned. A massive scheme to harness the abundant water in Lesotho's highlands may provide income from the sale of water and power to South Africa. Hand knitting, mohair spinning and other handicrafts are developing. Villages have water supplied, clinics close by and new schools.

It is as a part of this vital growing nation with a strong culture and a resourceful people that the foundation and growth of the Lesotho Distance Teaching Centre must be seen.

Education in Lesotho

There is a long tradition of education in Lesotho. To this day initiation 'schools' take in boys and girls to prepare them for adult life in rural Lesotho. Boys' schools take place away from the villages, girls' in the villages, and each involve young people for up to six months. It is very difficult to estimate the numbers who attend these schools today, but they are dwindling with the increased access to other kinds of education. Western-style education also has a long tradition. Morija Teacher Training College opened in 1854 and Lerotholi Technical Institute, in Maseru, began technical courses in 1904. The National University of Lesotho began as Pius XII College in 1952.

There are more than 1 000 primary schools in Lesotho today and 4 000 teachers help 200 000 children in those schools. Lesotho is one of the few countries in Africa offering universal primary education. However, there are enormous problems within the primary school system. Buildings are run down and overcrowded, classes often have more than 100 students and the teacher pupil ratio overall is 1:67. Teachers are underqualified and up to one-third have no qualifications at all. Textbooks, chairs and desks are a rarity. The drop-out rate is high. Of the 60 000 students who begin standard 1 each year, 16 000 will complete primary school at standard 7. Of those 16 000 only 6 000 are admitted to secondary schools. At this level there are 60 schools with 600 teachers and 16 000 students. Students study for three years and take the Junior Certificate examination. Some of these continue to study for another two years and take the Cambridge Overseas School Certificate exams. The problems of poor facilities and lack of textbooks are not as severe as in the primary system, although there is also a large percentage of underqualified teachers.

There are many organisations involved in education outside schools. Within government service, there is the Health Education Unit of the Ministry of Health, the Agricultural Extension Department of the Ministry of Agriculture, project officers in the Ministry of Community and Rural Development and the Institute of Extra-mural Studies of the University. Outside government, there is the Lesotho Family Planning

Association, the Private Health Association of Lesotho, the Co-operative Credit Union League, the Lesotho Red Cross, Catholic Relief Services and a score of others. When the Centre made an inventory of the organisations or departments involved in education in 1974, 47 organisations were identified. A more recent survey identified about 350 organisations involved in non-formal education in 1978.

The quality of the education provided in the schools of Lesotho obviously varies. In primary schools, quality is affected by the large numbers and in secondary schools by the expensive resources required. Outside school, quality is even more variable and is often adversely affected by the lack of assessment. Many staff involved in education are unclear of their objectives and because of this get into a routine: the annual course for fieldworkers becomes institutionalised, with its main objective being to occupy the fieldworkers; fieldworkers get into a pattern of visits and talks with no thought for effectiveness.

However, education is valued very highly in Lesotho, and both children in school and adults outside are determined to learn. Their determination puts pressure on educators to provide more relevant and more effective education. As in other sectors in Lesotho, many changes have come about during the past few years: the new National Teacher Training College had its first graduates — 100 secondary school teachers and 400 primary school teachers -- in 1979; the Lesotho campus of the University of Botswana, Lesotho and Swaziland has become the National University of Lesotho with almost 1 000 students; Lerotholi Technical Institute became Lerotholi Polytechnic in 1976, and trains technicians and tradespeople for industry and government; a new curriculum development unit is being built; plans are under way to drastically increase the number of places available in secondary schools; and the Lesotho Distance Teaching Centre is five years old.

The formation of the Centre

As far back as independence in 1966, the Ministry of Education was concerned about two problems in Lesotho: the large number of people who could not get a secondary education, or who dropped out before they had completed one; and the growing numbers studying privately with little help other than that provided by commercial correspondence colleges in South Africa. These courses were poorly designed, and often written for a different syllabus. They were also very expensive. So in 1967 the Ministry commissioned a report on the potential of correspondence education for Lesotho.

Things developed slowly from there. The Lesotho Institute for Further Education (LIFE), which had a secondary school and a night school in Maseru, began to plan a national correspondence college as a third arm, and in 1971 drew up initial plans for this. In 1972 the SACH-

ED Trust (the South African Committee for Higher Education — a non-profit body dedicated to providing an alternative education for black Africans within South Africa and incorporating Turret Correspondence College) visited LIFE to advise further on the college. As a temporary measure, LIFE began to offer Turret correspondence courses to students. In the same year, two Basotho delegates attended the inaugural meeting of the African Association for Correspondence Education, held in Nairobi. After this meeting they circulated plans for a corespondence college and received comments. They also began to attend meetings of the Botswana, Lesotho and Swaziland Correspondence Committee. (BLSCC — now called the Distance Learning Association — is an informal organisation which holds meetings every six months, distributes a newsletter and organises occasional seminars and workshops. Its meetings are attended by people from organisations involved in distance teaching in Botswana, Lesotho and Swaziland. The SACHED Trust also sends representatives.)

In the meantime, some small beginnings had been made in Lesotho. The mathematics division of the Ministry of Education had developed correspondence materials to help teachers with the new mathematics. The university had begun a law course by correspondence. A more general in-service course for primary-school teachers had also begun. In the event, all of these died a natural death, either because they had fulfilled their function or because there was nobody to carry them on.

In 1973 Michael Young, chairman of the International Extension College, was invited by the BLSCC to do a survey of distance teaching in the three countries. During his stay in Lesotho, he held discussions with the Minister and the Permanent Secretary for Education, Odilon Seheri, and at their request drew up a plan to start a national extension college in Lesotho. Under this plan, the Lesotho government was to provide office space and equipment, free postage, M8 000 a year, and the services of three Basotho graduates to staff the new institution; IEC was to provide the first director and continuing guidance; and the International University Exchange Fund was to allocate funds to establish the extension college. The nature of the college proposed by IEC and the Ministry of Education was significantly different from the national correspondence college originally planned. It stressed the use of distance-teaching methods to provide basic education to rural people, as well as help for private examination candidates.

Philip Baker, then deputy director of the Mauritius College of the Air, visited Lesotho a number of times in 1973 and drew up final plans for the college. He came back to Lesotho in February 1974 as the first director. At the time of writing, the proposed national extension college has become the Lesotho Distance Teaching Centre, an organisation with a very large modern building, equipped with a printing workshop,

modern darkroom and recording unit. The centre has a staff of 68 full-time people, of which 20 are graduates. It also employs many part-time tutors and group leaders.

The Centre was established as a division of the Ministry of Education with some autonomy. An Act of Parliament, deemed to have come into effect on 1 April 1978, protects its financial independence. Many of its staff are now Lesotho civil servants. It has a Mosotho director and deputy director and its own management committee. It receives salaries and financial support from the Lesotho government, as well as support from a variety of donors. It is helping 1 000 private candidates to study for examinations, a large number of young people to become literate and numerate, many thousands of rural women to acquire useful practical skills, 500 teachers to improve their qualifications and a large number of other organisations to use distance-teaching methods to provide more effective education. It has developed correspondence courses in a number of subjects, a series of radio programmes for these same subjects, self-instructional booklets in Sesotho on child care, pregnancy, vegetable growing, crochet, first aid and cookery, a wide variety of pamphlets, posters, flip charts, leaflets, booklets, radio programmes, radio spots and training courses for other organisations, a variety of self-instructional workbooks and games to help young people to become literate and numerate, and it produces a monthly supplement for two of the national newspapers to print and distribute. It has also published research reports on many of its activities.

Clearly, the Centre has achieved many of its original objectives and Lesotho now has an institution with skilled staff able to serve the real educational needs of its people. However, it certainly was not an easy task to begin and develop the Centre.

Some of the problems

When Philip Baker arrived in Lesotho, he was given one corner of a room in LIFE as an office, no equipment and occasional access to one graduate — a senior officer in the Ministry of Education who was never freed from her duties in the Ministry. He managed to find office accommodation, at first sharing a house which was being lived in and then in an old building on the main street of Maseru. More importantly, Philip managed to recruit a number of key staff members; an expatriate as organiser of the educational support for rural people and three Basotho as printer, typist and artist/driver. His most serious problem was in getting funds. An initial grant of M6 500 from IUEF had almost run out when the Ministry of Education released M8 000 in July.

When I arrived to succeed Philip in February 1975, the Centre had started work on important projects, and had a number of key staff — 3 Basotho and one expatriate. However, the problem of funding remain-

ed. An application to NOVIB (a Dutch agency) for funds was still being considered; with hindsight this application would not in any case have covered our needs. We drew up a number of other applications, borrowed from IEC, crossed our fingers, and went ahead.

Luckily Lesotho held an aid donors' conference in April and the Irish government representatives at this conference agreed to provide back-up funds to the Centre for the next four years. Although the funds did not arrive until December, we knew in June that they were approved and this enabled us to take on additional staff, including our first student adviser, Kenneth Tsekoa.

1976 saw the solution to our financial problems, with the arrival of NOVIB funds and with World Bank agreement to provide the balance needed for our new building. However, we remained with establishment problems. The status of the Centre was not defined. No written record existed of its invitation to Lesotho or its links with the Lesotho government. At that point, however, we were impossible to ignore. Radio programmes were going out, students enrolled, and work with other organisations going ahead. We drew up a project agreement which was approved in October. Our staff increased to 25 and Roger Mitton, who had been the rural education organiser since May 1974, agreed to become the first deputy director.

1977 saw further progress towards our establishment as a division of the Ministry of Education with some autonomy. This was encouraged by the return to education as Permanent Secretary of Odilon Seheri. He became the first chairman of our management committee and negotiated our staff establishment with the office of the Prime Minister. In 1977, we appointed the first Mosotho deputy director, Sister Mary Molelle, when Roger Mitton left Lesotho to return to England. In October 1977 Lesotho hosted a second donors' conference. And in his address to the delegates, the Permanent Secretary of Education had this to say about the Centre.

> 'Mr Chairman, ladies and gentlemen, it would be extremely remiss of me to conclude these brief introductory remarks without making some reference to what we consider one of the most important breakthroughs in our efforts to make education available to the greatest number of Lesotho citizens for the longest time possible. One classic way in which we have achieved this is through a programme of life-long education provided by the Lesotho Distance Teaching Centre. This Centre was established with the kind assistance of the International Extension College, the government of the Republic of Ireland and the International University Exchange Fund in collaboration with the Netherlands government. The job of this institution was, right from the onset, to go beyond the formal examination priorities so often associated with correspondence schools the world over. During the first four years of its existence the Lesotho Distance Teaching Centre has already launched programmes that span the entire spectrum of continuing education. From this brief description it must already be clear that Lesotho Distance Teaching Centre has set itself a mammoth task. Through its radio, correspondence facilities, and mobile services, Lesotho Distance

Teaching Centre is already reaching the length and the breadth of Lesotho. The most current of its problems have to do with the development of learning materials for students and the evaluation programmes necessary to ensure the efficiency and effectiveness of the programmes.'

In April 1978 many of our staff became an established part of the civil service of Lesotho, and in May 1978 Kenneth Tsekoa took over as the first Mosotho director of the Lesotho Distance Teaching Centre. Later that year came the official opening of the new Centre building and the promise of funds to build an extension. 1979 saw further growth, as the Centre began to consolidate its central role among organisations providing education out of school.

The Centre continues to face serious problems: co-ordination of its many activities, the transition from an innovative to a well established institution and recruitment and training of staff. However its problems today are very different from those of five years ago. Then the problem was to gain sufficient recognition to get the resources to do some experimental work. Now the problem is to continue to carry out its many programmes while remaining in a position to assess and undertake new activities.

Postscript

I refer in this chapter (on pp.11-12) to the numbers of secondary schools and secondary school students in Lesotho. These figures were correct in 1979. However, the secondary school system began to expand in that year, and this continued in 1980 and 1981. In 1981 there were more than 100 secondary schools with more than 20 000 pupils. The new curriculum development unit was built and occupied in 1980.

Chapter 2: The work of the Centre

In 1973, when Michael Young and Odilon Seheri drew up the plans for a Lesotho national extension college, they identified two groups of people that it should help: private candidates studying for examinations outside schools and rural people. They also decided on teaching methods. The new centre was to use distance teaching, combining printed materials, broadcasts and face-to-face teaching. However, no decisions were taken about what the new extension college was to teach to the rural people, which subjects it was to offer the private candidates, or at what level these subjects were to be taught. Another decision remaining was the appropriate mix of print, broadcasts and face-to-face teaching.

The first two years saw considerable progress in defining and beginning to undertake work to help both private candidates and rural people. The Centre also began to work to help organisations involved in out-of-school education — acting as a service agency, advising them on the use of distance-teaching methods and designing and producing distance-teaching materials for them. In its third year, the Centre began to investigate helping a new group of people — boys who drop out of school to herd animals. Because of this, literacy among boys is poorer than among girls. And in its fifth year, the Centre began to work with under-qualified primary school teachers to help to upgrade their qualifications.

The groups of people we aimed to help, the topics, and the mix of print, broadcasts and face-to-face sessions, were decided for a number of reasons. In most cases, it was a combination of research findings, the availability of resources and skills, and the expectations within Lesotho.

(a) Helping private candidates

Many people in Lesotho expected the Centre to help people studying secondary school courses outside the schools. Increasing numbers of private examination candidates (as distinct from school candidates) were sitting for examinations each year with no help. This was for two reasons: people who had not had the opportunity of education when

they were younger wanted a second chance; and there were many young people completing primary school but unable to get into secondary school.

Which exam?

Students in secondary schools study for three years and then take the Junior Certificate examination. Those who succeed study for two more years before they take the Cambridge Overseas School Certificate ('O' level). The Centre decided initially to help private candidates studying for 'O' level, and during 1974 began to adapt a modern mathematics course which had been written for English students but also used in Mauritius. A number of part-time writers were invited to begin writing other 'O' level courses and a writers' workshop was organised. Later in 1974, the first students were enrolled for the modern maths course and the Centre hired its first tutor to mark scripts and supervise student progress.

Having a mathematics course with the name 'Lesotho Distance Teaching Centre' printed on it provided a very concrete example of progress. However, it quickly became clear that the maths course was too difficult for the many students who enrolled for it without any secondary education. We reviewed our decision to work with 'O' level private candidates and decided instead to begin to work with private candidates studying for Junior Certificate. A number of factors influenced us.

— There were many more private candidates sitting for Junior Certificate than 'O' level (1 000 sat for JC in 1974, 400 for 'O' level).
— When we had developed a system to help Junior Certificate candidates, we could build on that to help 'O' level students.
— Some of the learning materials we developed at Junior Certificate level might transfer to other activities — educational materials to help private candidates studying for Junior Certificate bookkeeping, for example, might be of use to credit union treasurers.
— Importing courses from elsewhere was unsatisfactory and in developing our own it was simpler to begin at a lower level.

What courses?

We were obliged to develop courses in maths, English and Sesotho, as they were obligatory, as also was a science subject. Here we developed our own syllabus in human and social biology, which was accepted as an extra subject for private candidates. We also began book-keeping and agricultural science — for the two reasons of relevance to Lesotho and possible spin-off to our work with rural people.

Which teaching methods?

When teaching a detailed, wide-ranging course at a distance, there are good educational reasons for choosing printed materials (access for revision and the ability to study at one's own pace are two obvious ones). In Lesotho the educational reasons were supported by the practical situation. Although many private candidates had access to a radio, we found that Radio Lesotho did not provide a good signal over much of the country. As we could only broadcast over Radio Lesotho, that ruled out radio as the major educational medium. Extensive use of face-to-face teaching was also ruled out by the scarcity of qualified teachers. We tested the postal services and found that they were quite good. So we decided to design a number of correspondence courses to cover the syllabuses of each of the subjects. These courses were to provide the bulk of the teaching, which was to be supplemented in various ways. The courses would demand that the students submitted written exercises at intervals and we hoped to recruit teachers to mark these. We also planned that the teachers would give regular weekend courses in schools through Lesotho. We planned orientation courses for new students, examination courses for exam takers, motivational materials, such as a students' newsletter, hints on how to study and a students' handbook, and we thought of study centres with a radio and a small library. Finally we planned a series of radio programmes to supplement the correspondence courses.

Adapt or do it yourself

We took a decision to produce our own learning materials and not to import materials from elsewhere and adapt them for use in Lesotho. This is almost certainly the most fundamental decision we took. Adapting a correspondence course from elsewhere can be done quickly and cheaply. Producing our own courses involved considerable expense (a quarter of our recurrent costs in 1978 were for writing) and was very difficult to organise.

We were influenced to produce our own courses because:

a. the 'O' level maths course produced in Britain was giving students problems and we learned that it had also given serious problems in Mauritius;
b. some of our syllabi were unique to southern Africa and it would be impossible to find courses to adapt;
c. adapting a course implies accepting the format and learning design — we had seen few good courses elsewhere;
d. courses produced in another country have examples designed for that country and adapting may not be able to get rid of all those.

On the positive side, we felt that: (a) the experience of producing our own courses would generate considerable writing skill in the Centre and also elsewhere in Lesotho; (b) we could write our own courses to ensure that they would fit into our unique system of support using radio, weekend courses, etc.; and (c) courses specifically designed for Lesotho might be used in Lesotho's schools.

Our students

We decided right from the beginning that young school-leavers would not be the main audience for our courses. Evidence from Zambia indicated that a school-leaver programme using correspondence materials faced serious problems and studies in the United States of America, comparing the results of soldiers leaving the army with those of recent school-leavers, suggested that the longer a person had been away from school, the better he would be able to study by correspondence. However, we did not want to discriminate on the grounds of age. What we decided to do was to send potential enrollers a first lesson free of charge and ask them to study that lesson. If they did and felt they could handle written material of that difficulty, then they should enrol. If not, they should not.

We also kept numbers down initially by not having an easy payment system. We divided each course into parts and charged students for the parts they received. The Junior Certificate mathematics course, for example, was divided into three parts, and students paid M10 initially for Part 1. When they completed that they could get Part 2 by paying another M10. If they dropped out they were not obliged to pay more. In this we differed from the commercial correspondence colleges in South Africa, who would enrol a student for a payment of M2 and a signed undertaking to pay an amount each month for one or two years. Students were obliged to pay that amount whether or not they dropped out. We were also careful to point out to students the total cost of enrolling for these subjects with us. Including the textbooks it might be as much as M100, and obviously this acted as a deterrent.

By the end of 1979 a lot had been achieved. We had produced six courses at Junior Certificate level and four at 'O' level. We had recorded a series of radio programmes to support each of these courses. Teachers throughout Lesotho had marked innumerable scripts and held hundreds of weekend courses. The Centre had itself organised orientation courses and examination courses. A students' handbook and a 'how to study' booklet were produced and student newsletters and tutors' newsletters had been distributed. And more than 700 students had been enrolled.

Student numbers

The table below gives the numbers enrolled in different subjects by year. (Courses in human and social biology at Junior Certificate level and accounting, geography and English at 'O' level are now ready and students are being enrolled in 1980.)

	Maths 'O'	*Maths Jun. Cert.*	*Book-keeping*	*Agri. sci.*	*English*	*Sesotho*	*Totals*
1975	47	—	—	—	—	—	47
1976	50	78	73	60	—	—	261
1977	16	71	95	55	38	—	275
1978	48	85	70	49	142	45	439
1979	45	52	26	18	110	46	297
Totals	206	286	264	182	290	91	1 319

There are two points to make regarding these figures. First, they do *not* imply that the Centre helped 1 319 individuals, as people generally enrolled for more than one subject. The most that can be said is that the Centre worked with more than 700 individuals. The second point is that they do not include 360 teachers who studied with LDTC and about whom I shall be writing later.

The characteristics of the students who enrolled with LDTC were:

— the average age was 30;
— slightly more than half were female;
— teachers, secretarial and clerical workers predominated;
— most had been away from full-time study for more than five years;
— most had no assistance with their studies other than from the Centre.

The support system

As we developed courses and scripted radio programmes we learned. As our students enrolled, tried to cope with the learning materials, and either struggled through or dropped out, we learned much more. Each year we analysed progress through our courses and each year we amended the system a little to try to improve progress. Two aspects of our support — tutors and enrolment times — changed significantly over the first few years.

Tutor support

We enrolled our first students in our adapted mathematics course late in 1974 and began to provide them with marking services. Students would complete an assignment, send it to a tutor for marking, and the tutor would write comments and suggestions when returning the marked assignments. We also organised a weekend course for our students on study methods. The attendance at this course and students' requests prompted us to begin a series of weekend courses on different mathematics topics. These were usually held on Saturday morning and they were all very well attended.

At the beginning of 1976, we enrolled tutors to mark assignments in mathematics, agriculture and book-keeping at Junior Certificate level. These were almost all secondary-school teachers. We ran a course for these tutors early in 1976 and worked out with them a timetable and list of topics for weekend courses in their schools. This was circulated to all our students. During 1976 these tutors marked all the students' assignments and ran a total of 37 weekend courses in different schools throughout Lesotho. The quality of the courses and attendance at them varied considerably. However, we were sufficiently encouraged to recruit more tutors for English during 1977 and to appoint a tutor organiser to look after the training and monitoring of all our tutors.

During 1976 and 1977 the tutors we recruited did both jobs: marking students' assignments and running weekend courses. We hoped in this way to make weekend course tutors aware of the problems their students faced. We also hoped that they would design remedial lessons to solve these problems. But there were difficulties. The tutors living in the mountains would receive assignments late and then mark them and post them to us. That caused a further delay. If a tutor didn't mark assignments quickly we could write to him and advise him, but if he didn't reply, it was often difficult to go out to visit him. During 1978 we decided to separate the two jobs of marking assignments and running weekend courses. We also decided to recruit the tutors to mark assignments from around Maseru. We were able to monitor their marking more easily as a result.

The topics on which students received the weekend courses were initially chosen by the tutors themselves. We would communicate the topic list to the students and they would attend the courses if the topics were useful to them. This also changed. As the course writer's work expanded to include the development of radio scripts, and as the Centre's policy on integrating correspondence courses, radio and face-to-face teaching hardened, we asked the writers to develop a set of guidelines for weekend course tutors as part of their course development work. These guidelines generally cover the topics on which weekend courses

should be given and the times of the year at which they should begin, and they also provide ideas on how to teach those topics.

Following an analysis of attendance at weekend courses in 1978 we stopped courses in a number of areas. Students there now receive vouchers which entitled them to seek advice from a local secondary-school teacher or subject expert. We pay the teachers on receipt of the vouchers.

Lockstep

Perhaps the biggest single development in our support for private candidates was to provide our services in lockstep. A report on our students' progress in 1976 showed that many were not taking advantage of the radio programmes and weekend courses and recommended that we move towards a lockstep system. This meant that we encouraged students to enrol in the first four months of a year and to study our courses over a two-year period. Students were given a timetable on the submission of assignments and the radio programmes and weekend courses assumed that students were following their timetable. This system provided much more support for students who followed the timetable. The lockstep system did not exclude students who enrolled late or who wished to study at a different pace. They still had the correspondence courses and the marking services. However, the radio programmes, weekend courses and the orientation and examination courses were not designed for them. We began to implement the lockstep system in 1978 and it will be some time yet before we can begin to assess its effectiveness. It is clear already that it has a beneficial effect on the development of course materials, as the relationship between the three main supports — the correspondence course, the radio programme, and the face-to-face teaching — is much more defined. Because of this, course writers have a much clearer idea of the role of radio and thus the type of scripts they should write and also of the role of face-to-face teaching and the kind of guidance they should give to the tutors.

Problems

The biggest single problem was in getting the courses written. A second, less serious, problem was to have them produced. Despite using a variety of writing systems, which I shall explain in some detail later, we were invariably behind schedule. Writers got sick, left, dissolved into tears or hysterics, but did not perform as we had hoped. Even when the courses were written, we had great difficulty keeping to a production schedule. Typing, editing, proofing and layout each took longer than we anticipated. For the first three years we were not able to keep pace with

the most diligent students and we had to make a number of *ad hoc* arrangements to help them through the last parts of their courses.

Some members of staff argued that we should not enrol any student on a course until the whole course was written and half the course produced. This advice was also given by Renée Erdos, in her book *Teaching by Correspondence* (London, Longmans, 1967). Others, myself included, thought differently. We felt that the students were presently receiving no support at all and that we should give any help we could, always assuming that we told the student that the whole course might not be ready and that we charged fees accordingly.

Examination results

Students can benefit from correspondence courses in a number of ways. For example, a course in English might help them to enjoy reading and a course in agriculture might help them to keep better gardens. These benefits are obviously difficult to measure and the Centre made no attempt to do so. The main reason most students enrolled with the Centre, however, was to pass an examination. The simplest measure of the success of our support for private candidates, therefore, would be the number who passed the examination. In 1975 we began negotiations with the Examinations Council of Botswana, Lesotho and Swaziland, to enable Centre students to be registered differently from other private candidates. Without this we could not find out their results. However, it was not until the 1979 examination that it became possible to discover the results of some of the students who were studying with the Centre. In future years we should be able to find the results of all Centre students.

The 1979 results were:

	English	*Maths*	*Sesotho*	*Book-keeping*	*Agriculture*
No. sat	59	35	53	17	28
No. passed	45	31	45	6	26
% passed	76	89	85	35	93

These results are interesting, but do not tell us very much. For example, we do not know the enrolment years of the students who sat the examination in 1979, and therefore have no idea how much of our courses they had studied before they sat for the examination.

Comparing enrolments in 1978 very crudely with examination sitters in 1979, more than one third of those who enrolled in 1978 sat in 1979, and more than a quarter passed.

We also compared the results of Centre students who sat in 1979 with those of private candidates who were not registered as receiving support from any institution, and found that our students did significantly worse in book-keeping, the same in agriculture and significantly better in maths, Sesotho and English.

Other measures of progress

The number of assignments a student sends in each year is a good measure of progress through a course, and each year we were shocked by the number of students who enrolled with us, took away their courses, text books and 'how to study' guide, and then never sent in anything.

In 1978, for example, 40% of the students who enrolled in our Junior Certificate mathematics course never sent in an assignment. In the same year 15% of the students studying English, 19% of those studying book-keeping, 45% of the agriculture students and more than 50% of the Sesotho students did not send in any assignments.

Looking back at our figures over a few years, a crude summary would be that one-third of our students never sent in any work, another third faded away in a year and the remaining third did a large part of the work we asked of them. Very few did all we asked. Perhaps a third of our students sat for the examination and about a quarter may have passed.

Helping underqualified primary school teachers

The amount of work we did to help private candidates yielded relatively disappointing results. Writing and producing good correspondence courses took years of work. Producing radio programmes, training tutors, administering our support services and improving on them: each of these took resources and time. Each year from 1975 we improved our services and yet the fraction of our students who benefitted remained relatively constant. We wondered about our system and felt that the ideal test would be to have large numbers of well motivated students all enrol at once and observe their progress over a two-year period. Amazingly, such an opportunity presented itself.

Lesotho has 4 000 primary school teachers and 1 500 of these have no more than the Lesotho primary school-leaving certificate. The National Teacher Training College (NTTC) enrolled its first full-time students in 1975 and began to organise in-service programmes from 1976 on. However, the college's resources were limited and the programmes

could make little impact on the many underqualified teachers already in post. A stated aim of NTTC is to have fully qualified teachers in all schools. As those qualifying each year take up jobs in schools, the underqualified teachers are under increasing risk of losing their jobs.

We began to discuss the possibility of using distance-teaching methods to solve the problem and in 1977 drew up a plan with the in-service adviser at NTTC to qualify 1 500 teachers over a ten-year period. The first phase of this plan was to take in 360 teachers early in 1978, provide them with a two-week orientation course and correspondence materials and send them back to their schools to study for two years. Successful completion of the course would result in a certificate issued by the National Teacher Training College and an increased salary. It would also ensure that they did not lose their jobs!

The work of qualifying these teachers was divided between NTTC in-service staff and the Centre. NTTC looked after the teaching of pedagogy and elective subjects. The Centre looked after the academic content of three Junior Certificate subjects.

The NTTC provided learning materials in education, its own marking service and face-to-face support from over 50 in-service supervisors throughout Lesotho. The Centre enrolled the students for mathematics, English and Sesotho and provided them with exactly the same materials as its other private candidates. At six-monthly intervals over the two-year period, students were brought together for residential courses. At these courses the students were taken through any parts of the course materials that were difficult and we got a good deal of information about ways to improve our help for them. The last course, held in January 1980, was attended by more than 300 of the original 360 students.

These underqualified teachers provided an ideal test of the system, as they began in 1978 and studied their subjects in lockstep with radio support and weekend courses. Their level of motivation was such that they were very anxious to pass the course to get job advancement. It is difficult to provide a completely objective assessment of their progress in the Junior Certificate courses, since the students were not obliged to sit for the Junior Certificate examinations in English, maths and Sesotho. The NTTC assessed their progress on the subjects at each residential course and satisfactory progress ensured the final certificate. 296 students received this certificate — a pass rate of 82%.

Although the teachers were not obliged to sit for the Junior Certificate examination to get their qualification, a number did so. Their results were as follows:

	English	*Maths*	*Sesotho*
Number sat	122	122	114
Number passed	87	108	105
% passed	71	89	92

The undoubted success of the first phase made us decide to begin a second phase immediately. This involved enrolling 220 new students to take English, maths and Sesotho with us and the education courses with NTTC, while at the same time starting 280 of the first-phase completers on their new Junior Certificate courses with us in human and social biology, agricultural science and book-keeping, while going on to more advanced education courses with NTTC.

The future

The evidence from the first five years of our work to help private candidates is that distance-teaching methods can help well motivated groups to improve their academic qualifications. However, individuals do not benefit to the same extent and the Centre will have to experiment with a wide variety of support services to help more of them to achieve their objectives.

(b) Helping rural people

We were determined from the beginning that the work to help private candidates should not interfere with our intention also to help rural people in Lesotho to improve the quality of their lives. As a general principle we aimed to devote 50% of the Centre's resources to each activity. In planning our work for rural people, as in planning our work for private candidates, we began by trying to determine:

a. the kind of help that we would give to the rural people, and
b. the way in which we would provide that help.

We decided on the kind of help when we had a better picture of life in rural Lesotho. Lesotho's population of about 1.2 million lives almost entirely in villages. The pattern of life in villages is fairly well established. Each family in the village has some fields allocated by the chief, who holds all land in trust for the king. Each year the family plants maize, wheat or sorghum in the fields and harvests it for consumption throughout the year. Some families also have animals: goats, sheep and cattle — the number of cattle being an important mark of a family's

wealth. These animals are looked after by young boys. Most boys and girls attend school at some point in their lives, but many boys drop out of school to herd animals. When the crop is harvested, animals are allowed to wander freely and graze wherever they wish (interfering drastically with any attempts to grow a second crop). During the winter months, most animals are herded in the lowlands and close to the family's village. During the summer months, however, when planting has begun, and right up to harvest, the animals are taken to the mountains and the young herdboys may stay with them for several months, carrying very little food and living on their wits and knowledge of wild vegetables. As herdboys get older, they join their fathers in the mines of South Africa. The mine contracts are usually for nine months, but most normally stay for two years and then return to Lesotho. They may do one more term in the mines to get cattle and then they get married, having paid part of a *lobola* (bride price) of about 22 cattle. When they marry they are allocated land by the chief — something that is becoming much more difficult now, as the demand for land has increased — and they spend the next twenty years on the biennial trek to the mines.

The women at home meanwhile look after the children, see that the animals are cared for, and plant the fields. Each month many of them get a remittance from the husband in the mines.

Some important factors are obvious from this very cursory description. Half the adult males of Lesotho are working in South Africa, and any active men at home look on themselves as being on holiday between contracts. The *de facto* rural population, therefore, consists mainly of women, and it was clear in 1974 that any national education programmes for rural people must be particularly concerned with the needs of women.

Following discussions with a number of people involved in education in rural Lesotho, it was decided quite early to offer education on practical skills to rural people. As this education should be relevant mainly to women, the skills we had in mind initially — depending on the results of research and feedback — were cookery, dressmaking, crochet, poultry and rabbit keeping, vegetable growing and child care.

The methods

The second question in 1974 was how to provide the practical skills. This took a lot longer to answer. A variety of methods had been used in other countries and many of these involved distance-teaching methods. For example, radio listening groups had been formed in both Tanzania and Botswana, and in Tanzania radio had been used to pass on practical skills to the groups. In South America, newspapers, roving ciné projectors and cassette tapes had all been used to provide rural education. An examination of conditions in Lesotho eliminated some

possibilities immediately. The lowlands of Lesotho occupy about one-third of the area, while the mountains take up the remaining two-thirds. Communication is easy along the main roads in the lowlands, but very difficult off these roads, particularly in the mountains during the rains from October to March and in the heart of winter from June to August. So any approach using roving ciné vans was out. The harsh physical conditions also impeded radio reception and in 1974 Radio Lesotho was using a 10-kilowatt transmitter broadcasting on medium wave and reaching a very small part of the lowlands of Lesotho. Reception was almost nonexistent in the mountains. Although there were plans to improve the transmission of Radio Lesotho, there was no immediate possibility of this happening in 1974 or early in 1975.

In mid-1974 it was decided to do some preliminary research, which uncovered one enormously positive factor. In a survey adminstered to a representative sample of over 200 adult Basotho scattered throughout the country, a high rate of literacy was discovered. People were given a text in Sesotho, asked to read it and then asked questions about the text. If they were able to answer some of the questions properly, it was clear that they were literate. By that criterion, slightly over 50% of adult rural Basotho were literate. It was obvious that any approach to rural education in Lesotho should use printed materials extensively. That still left a number of other questions: for example, whether newspapers should be used, as in Latin America. It was discovered that the newspaper circulation was low and as the Centre couldn't put out its own newspaper, that possibility was eliminated. The possibility of using printed materials with groups, as INADES was doing in West Africa, was also examined. Again there were some negative factors. The political difficulties in Lesotho in 1970, when the election was suspended, and further problems in 1972, made the formation or continued work of groups suspect. Accordingly, it was decided not to try to resurrect groups, but to work with individuals. Out of all this preliminary thinking the booklet scheme emerged.

The rationale was given in 1975 as follows:

> 'It is possible that if a range of attractive, simple and practical booklets in Sesotho were well published and made available at low prices in villages, people's desire to learn something useful would be sufficient motivation for them to buy a booklet, read it and put it to good use. There is a dearth of such material at present. Since such a scheme requires no organisation of students, it could be a way of offering useful instruction to large numbers of rural people.'

With this in mind, financial support from Christian Aid and help from a nutritionist, work began on the first booklet on cookery. Catholic Relief Services (CRS) work with nurses throughout Lesotho in 60 centres and 120 outstations to run clinics for women and their children. At these clinics the babies are weighed and checked and food

is distributed. The CRS nutritionist was anxious to help mothers to cook this food properly. Some of the recipes in the booklet used the foods which CRS were distributing to mothers and children and more used traditional foods. We produced 10 000 copies of the booklet and put these on sale at 5 cents each. Within a few months all 10 000 had been sold and we printed another 10 000, with the help of a small grant from the Maseru Round Table. These were also all sold, and we produced another 10 000, to sell this time at 10 cents each.

We included slips of paper in the cookery booklet asking people what topics they would like us to cover in future booklets. Child care, crochet and poultry keeping were high on the list, and we began to work on these. First aid was less popular, but we were encouraged to write a booklet on this by Lesotho Red Cross, and early in 1976 we printed 10 000 of these. Lesotho Red Cross took 2 000 and we began to distribute the others. Late in 1976 we printed 10 000 copies of a booklet on crochet. During 1975 and 1976 we conducted a number of knowledge, attitude and practice (KAP) studies on selected booklet topics to assist us with the writing.

By the end of 1976 we had three booklets in circulation. We held a discussion on traditional childcare practices with a group of village women and began to write two more: on care of the pregnant woman, and on care of the young child. We also began work on a booklet on vegetable growing and we got guidance from the horticulture section of the Ministry of Agriculture and the Thaba Bosiu rural development project on this.

Difficulties

We had also begun to run into some difficulties. The first was with distribution. The CRS cookbook had proved to be exceptional, in that CRS had nurses in 60 centres and 120 outstations who were prepared to sell the booklets on our behalf. Although we distributed the first aid booklet and the crochet booklet to those clinics which wanted them, we found less enthusiasm. As well as CRS clinics, we contacted other clinics, women's organisations, family planning fieldworkers and the fieldworkers of other organisations. Despite these efforts, by the end of 1977 only 5 000 first aid booklets and 4 000 crochet booklets had been distributed.

Another difficulty was in getting money returned. We allowed organisations and fieldworkers to sell booklets at 10 cents each, keep 2 cents for themselves and send 8 cents to us. They needed reminding of this and continual reminders needed time and effort. We began to seriously consider a more active distribution policy, perhaps involving a full-time person.

However, a second and more fundamental difficulty made us decide to wait. In the middle of 1976 we conducted a survey to determine the use made by rural women of the CRS booklet. The results were less encouraging than we would have liked. We found that, although most buyers read at least parts of the booklet, it was not used much. A minority had not tried any recipes. The majority that did use the booklet tried only a few.

We began to rethink our methods of distribution and encouraging use of the booklets. Obviously if people were buying booklets, but not using them, this was unsatisfactory. Perhaps women needed help to study the booklets. Perhaps the booklets themselves were at fault. We began to think of radio again and of groups. However, the results of the cookery booklet evaluation were not conclusive. We needed to find out the uses made of other booklets.

We decided to conduct a rigorous test of the uses made of the crochet booklet and at the same time to experiment with group use of the booklets. Lesotho had been relatively peaceful for a number of years by 1977 and it was again possible to work with groups. We distributed the booklet to individuals and to a number of women's groups. We also brought together some of the group leaders and trained them to help their groups to use the booklet.

We planned all this early in 1977, carried out the work during the year and assessed the results of our efforts towards the end of it. We found that about a quarter of the individuals buying the crochet book learned enough to perform perfectly on a crochet test we administered. Some of these were beginners; others could crochet already, but had to learn a different technique. We also found that about three-quarters of the women studying the booklet with group leaders trained by the Centre performed perfectly on the test. Our support for groups appeared to have made a tremendous difference.

However, we also discovered that the cost of successfully helping people working in groups would be high if the booklets were produced only for groups. On the other hand, the costs would be 60% less if the booklets were produced to circulate to individuals as well as for use with groups.

The key recommendations made as a result of this survey were that the Centre should adopt a combined approach to the distribution of booklets. On the one hand, we should continue to produce booklets which could be used by individuals and distribute them actively. On the other hand, we should use the many existing groups and train leaders to use our booklets with them.

During 1978 and 1979, the Centre continued to write and distribute booklets. 10 000 copies of a booklet called *Expecting a baby?* were

distributed late in 1978 and another 10000, printed in 1979, are now being distributed. Other booklets on *Watching your baby grow, Advanced crochet techniques* and *Cattle diseases* were written and will soon be produced.

The future

There is a need for education on practical topics in Lesotho, and the Centre appears to be moving in the right direction to meet some of that need. Selling booklets to individuals appears to help some people, while working with groups appears to benefit others. Why this is so is not yet clear. A profile of individual booklet users and of group booklet users might help to choose one or other method to reach particular target groups.

(c) Helping other organisations to use distance-teaching methods

During 1974 the Centre acquired an electric 'golfball' typewriter, a small metal platemaker and an offset printer able to print on A4 paper. A typist and an artist/driver (part-time) were hired before it became obvious that the funds expected would not be forthcoming. Shortage of money forced the Centre to look for ways of earning its own.

When organisations came to the Centre and asked to have materials typed, illustrated and/or printed, it provided an opportunity to earn some money. During 1974 the Centre printed a variety of materials; from leaflets on fertiliser use to posters advertising the performances of pop groups.

Some of this work was not closely connected with education, but it earned money and it gave the staff valuable experience in layout and printing.

It had one further advantage. The Centre was providing a service that organisations could recognise. During 1974 as well, Centre staff visited all the organisations they could identify as being involved in out-of-school education in Lesotho. In the course of finding out what work they did, the staff explained the Centre's purpose in Lesotho and its willingness to help them to use distance-teaching methods. Many of these organisations had difficulty in getting things printed quickly and so they approached the Centre. They were helped and shown what else could be done. They remembered and came back to get the Centre's advice and help with other distance-teaching materials. From this grew what we called our 'service agency' work.

By December 1979 we had helped about 30 organisations involved in out-of-school education in Lesotho (and many others not strictly educational). Many of these organisations came to us more than once and a few of them came many times. The help we gave was very varied.

On the one hand we did a small survey to help the leprosy mission to plan their educational activities, while on the other we did a two-year project with the Lesotho Family Planning Association (LFPA) which involved a national survey, training courses for fieldworkers and volunteers, producing flip charts, posters, leaflets, pamphlets, and also producing full-length radio programmes and radio 'spots' for the general public. We also completed — as part of the project — an evaluation of the effectiveness of our support for LFPA.

The topics on which we provided educational materials were also very varied. We produced: leaflets showing people when to plant seeds, and how to plan families; pamphlets showing how to build a cowshed, and helping people to revise mathematics; booklets on co-operative housing, and how to grow asparagus; posters on road safety and kwashiorkor; handbooks for trainers of mohair spinners, and for villagers selling improved seed and fertiliser; and photostrips on family planning. We produced radio 'spots' on nutrition and drunken driving; and radio programmes on family planning and Basotho culture; and we used video recordings to help nurses practice giving health talks to rural mothers and to show fieldworkers the effects of their work with villagers.

Two projects

There is no typical service agency project. Organisations obviously have different areas of education in which they are interested — a family-planning association has different aims from a co-operative housing project. Similarly they have different target groups, and different implementation capabilities. Some organisations have an information and training section with field educators, other organisations have nobody involved full-time with education. I am going to describe two service agency jobs here. The first took us a very short time to do. We began to plan the work in January 1977 and completed it in April. The second took over fifteen months to complete.

ROAD SAFETY IN LESOTHO

As in many developing countries, road safety is becoming more difficult to achieve in Lesotho. As the number of cars and drivers increases, so do the accidents. An inter-ministerial committee was established to try to reduce the number of road accidents. The committee invited the Centre to contribute to the educational aspects of its work. We prepared a plan for a short campaign on the dangers of drinking and driving. This was to be run over the Easter period. The committee accepted this and we designed and pre-tested two posters, a letter to drivers and ten one-minute radio 'spots'. The posters were put up by traffic police in cafés, shops and at border posts throughout the

lowlands of Lesotho. The letter to drivers was signed by the Minister of Transport and posted to 6000 drivers in the lowlands. It was also handed out to drivers at border posts. The posters and letters were distributed three weeks before Easter. Radio Lesotho broadcast the spots about twenty times a day for the two weeks up to Easter. The posters, letter and spots reinforced the slogan 'When you drink, don't drive, when you drive, don't drink'. A survey conducted immediately after Easter indicated that the materials had reached over two-thirds of the adult population and almost all remembered and approved of the message. The materials cost the Centre M1 000 to design and produce.

FAMILY PLANNING IN LESOTHO

In November 1975 the Lesotho Family Planning Association (LFPA) approached us to help develop the educational aspects of its work. LFPA is the organisation responsible for the provision of family planning services and education on family planning in Lesotho. We looked at the work it was doing and its staff structure. We then drew up a proposal which LFPA approved. USAID provided funds.

The project had two major aims: to provide LFPA with a range of educational materials, and to strengthen its educational arm. During 1976 we worked intensively with LFPA field educators to help them to communicate more effectively with the general public. We also worked directly with the general public to provide them with more information on family planning. Our work with field educators involved designing: a standard talk to give at village gatherings (called *pitsos*); a flip chart of pictures to accompany the talk; and a pamphlet to hand out after the talk. We held two training courses, to get field educators to help us to design the educational materials and to help them to give the talk and use the flip chart and pamphlet. We also produced two correspondence lessons for field educators on topics they suggested.

Our work with the general public involved a series of 15 one-minute radio spots and six fifteen-minute programmes, which were broadcast during August 1976. We also produced pamphlets on contraceptive methods, which were distributed in November and December. To enable us to design some materials better and to provide a basis for the evaluation, we conducted a major study of attitudes to family planning in Lesotho.

The educational materials, courses for fieldworkers and survey costs were M20 000.

Difficulties

Our service agency work was in many ways the most revolutionary of our activities and we believe that we helped to make many educational

activities more effective, but there were also many difficulties. It is obviously difficult to choose the correct support package each time — perhaps a training course would be better than a series of radio programmes, or a leaflet better than a flip chart. And there are many difficulties in designing the materials: they must be pre-tested on the target group and be easily understood, but they most also convey the information needed by the requesting organisation. The two aims are often difficult to reconcile. However, these are difficulties which we face with any of our activities. There were difficulties peculiar to our service agency work and these became more apparent as time went on.

For example, in our work with one rural development project we were helping to train villagers to distribute agricultural inputs for the project. When discussing the contents of a handbook to give to the villagers, we identified problems of policy within the project which affected the training programme. Some divisions of the project had not worked out exactly what they wanted from the villagers, so it was not easy to produce a handbook for them. A national nutrition programme was hampered by a lack of cohesive policy within the project and continual staff changes. These necessitated many meetings — often going over the same ground. A second national road safety campaign on pedestrian education was not as successful as the first, as the posters had not been distributed widely enough. And a course for family planning volunteers had limited value because only twelve volunteers came, although 30 had been planned for. All of these difficulties were outside our control. In service agency work, which involves co-operation with other organisations, difficulties are bound to arise. With a view to keeping these to a minimum, we began to look very closely at our service agency work during 1978, and drew up criteria for acceptance and a contract of agreement which requesting organisations would have to complete.

Extending the service

We also began to look again at the organisations involved in out-of-school education. Although we had surveyed them in 1974, many new organisations had since begun work and the older organisations had got involved in new activities. It was necessary to find out again what was being done and what help was needed.

In 1979 we made an inventory of out-of-school education in Lesotho and brought together the organisations involved to share their experience and to plan a series of workshops on relevant topics. The first of these, on writing learning materials for rural people, was held in February 1980.

The future

As a service agency, the Centre has contributed to the educational activities of many different organisations. The work that some do contributes directly to Lesotho's development; other organisations contribute indirectly. No organisation working directly with the people of Lesotho can involve them in that work unless they are shown its value. This requires effective education. And because the people are adult and in rural areas, innovative methods are required. LDTC's role as a service agency, working to help these organisations provide more effective education, will undoubtedly continue to grow and develop.

(d) Helping young people to develop literacy and numeracy skills

Almost everybody in Lesotho is aware of the herdboy problem. Many families have livestock and these stock are allowed to graze freely in the lowlands after harvesting. When the fields are planted, the stock must be taken to the mountains to graze. Obviously they must be herded. By tradition, females are not allowed to herd animals and most of the men are absent working in the mines of South Africa. The job of herding animals naturally falls to young boys and these boys miss school. There are few educational opportunities outside school, so the boys suffer. A survey carried out by the Centre in 1975 found that 64% of women were literate, but only 46% of men. This was almost certainly a result of herding.

We wondered if distance-teaching methods could be used to counter any disadvantages suffered by young boys as a result of herding animals and we did a good deal of preparatory work to see what help was needed and how we could give it.

First, we talked to people about the uses of literacy and numeracy in Lesotho and then observed for ourselves as many of those uses as we could. As a result we drew up a list of the ways in which literacy and numeracy skills were used in Lesotho. This work ended in April 1976. We also administered an interview test to over 300 young people aged from 8 to 18 and interviewed a sub-sample of parents. The interview test was designed to find the level of literacy and numeracy, patterns of school attendance and attitudes to school. Most of the work was done between May 1976 and March 1977 and a preliminary report was available in June 1977. As the final stage of our preparatory work, we decided to try educational games. These were easy to carry and attractive, and had been successfully used in Ecuador. So we designed four educational games and tested these out in a number of ways. We carried out the work on games in October and November 1976 and produced a report in May 1977.

Findings

We found that literacy and numeracy skills are useful in many ways in the lives of ordinary people in Lesotho, particularly to write letters, read books and newspapers, fill in forms and do shopping. We also found that slightly more than half of all young people reach adulthood without the ability to read and write a short letter, or to do an ordinary shopping calculation in their heads.

We also found that most children receive some schooling and both they and their parents want to continue it — only between 5% and 10% reach adulthood without ever having been to school. However, many children, particularly boys, receive an education which is interrupted and incomplete. The experiment with educational games suggested that the games would be a useful aid to learning and that people would play them in villages.

The project

So we decided to go ahead with a project to help young people out of school to become literate and numerate. In planning this we had to take a number of decisions. At which young people should we aim our project? Obviously we wanted our materials to be of use to all young people who never attended school or who had to drop out early, and we also wanted them to be of use to teachers within schools. However, we had to be more specific in order to design useful learning materials. For example, if the majority of our target group were ten-year-olds, then we should take their interests and needs into account. Similarly, if the majority of our target group were boys, then this would influence the type of materials we designed.

Another question was the *level* at which we should begin. The research project had indicated that only between 5% and 10% of the young people of Lesotho would reach adulthood without ever attending school and so we thought of beginning at a level equivalent to the end of the second year in primary schools. Yet experimental learning groups established by us in villages to provide a way of testing our materials were attended almost exclusively by young people who had never been to school.

Eventually we decided to aim the materials at boys aged between 13 and 18 who had never been to school, but to ensure in the materials design that girls, other age groups and young people who had been to school were not excluded from using them.

In deciding which materials to use we were obviously influenced by the success of the games. We also designed graded workbooks and simplified reading material to help literacy skills. As Sesotho lends itself to a syllabic approach, the basis for the materials was the syllabic

method of literacy instruction. We also formed 18 experimental groups, involving about 140 young people in the lowlands and mountains of Lesotho, for whom a group-leader training course was held. These groups studied the draft literacy materials and we were able to amend much of them as a result of their work. We were also able to observe the group leaders at work with young people and get a better idea of attendance at regular group meetings. During 1977 we also began work on the numeracy materials. Here we adopted two approaches. The first involved using a number of workbooks with carefully sequenced and graded exercises and integrated games. The second approach was more topic-centred and involved a set of teaching cards and integrated games. As these materials were being developed we continued to test them on our experimental groups.

Centre staff designed both the literacy and the numeracy materials, in consultation with many people — mainly teachers. The Primary Curriculum Unit and the National Teacher Training College were particularly helpful at this stage.

A final question that we tried to answer before the project was how the materials would be used. One possibility was to distribute them widely and encourage parents to buy them. Another was to set up groups with trained leaders. While designing materials we recruited interested villagers, gave them some of the learning materials and asked them to lend them out to young people. We wanted to find out how well the games and workbooks worked. We found that the villagers all began to organise regular meetings with groups of young people. They did this because they were afraid the materials would be lost if they gave them to the young people to take away. Also, because they had so many young people coming at all hours it was more convenient to arrange a fixed time. More importantly, most of the young people had never been to school and had no foundation skills, so the group leaders had to help them a lot. Our observations also showed that young people would play and enjoy games on their own, but would not learn anything unless they were supervised and encouraged to notice things.

All of this made us begin thinking much more of a structured approach, catering mainly for young people with no foundation skills and leading on to a more open approach when they would be able to use the self-instructional materials on their own.

The project in action

In May 1978 we began a pilot project designed to find out whether leaders trained by us could organise groups of young people to meet regularly and use materials with a self-instructional component to acquire or improve their mastery of literacy and numeracy skills.

In February 1978, we visited chiefs, church leaders and teachers in

the Thabana Morena area of Lesotho, to explain the project and to enlist their help in recruiting group leaders. Early in March we addressed a *pitso* to explain the project further and later that month we had our first meeting with potential group leaders. Each leader was to recruit a group of between 10 and 15 young people, all above the age of 10, and willing to meet at least three times a week and to pay M1.50. Provided that they attended training courses and met the young people three times a week, the group leaders were to be paid M8 a month.

We held our first group leaders' training course in May. It was attended by 48 group leaders. The course helped them to use literacy materials. They then went back to their villages to begin work. 44 leaders recruited learners and began to work. In June we ran our second training course, to review progress on literacy and to introduce the leaders to our numeracy materials. We also paid the leaders for their first month's work and interviewed some of them to find out their problems. We met again in July and August.

The group leaders worked with about 650 young people, the vast majority of whom were boys. About 60% had never been to school. There were about 13 learners in each group and they met more than three times a week. Attendance was normally about 80%. Between May and October — when an evaluation was carried out — only one group leader dropped out. About 25% of the learners dropped out, mainly to attend initiation schools or to herd animals.

Learning

Unfortunately, the amount of learning we were able to measure was small. Only about one-third of the sample we tested appeared to have learned much about reading and writing. Almost two-thirds learned some very simple numeracy skills (counting, addition), but very few learned more.

Given the time, effort and cost of developing the learning materials and the success of the group organisation and the leader training courses, we were disappointed. Each learner would have had about 80 sessions over a five-month period, perhaps 50 on literacy and 30 on numeracy, and yet most were not able to demonstrate learning.

Some specific suggestions were made regarding the learning materials, in particular to aim them more at non-literates, to drastically reduce the number of games and, finally, to take account of the ways in which group leaders were likely to use them. However, an analysis of the costs involved indicated that we would need somewhere between M40 and M50 per successful learner in a large experiment, and follow-up has therefore been delayed.

Instead, during 1979, we concentrated on disseminating the materials in different ways. First we began to work with the Lesotho Workcamps

Association. LWA runs workcamps in villages, undertaking such projects as building a school or putting in a pipeline. LWA informed villagers of the opportunity to become literate; the Centre trained workcamp volunteers, who were to help the learners begin and work with them for three weeks. At the end of that time the learners would take away the workbooks and work on them themselves. The numbers involved were small and no evaluation was conducted.

In a second experiment we disseminated the materials through schools and began to follow up on the uses made by teachers and students. In all we worked with eight schools and held two orientation courses for teachers. Teachers and students worked with the materials during the 1979 school year. Although we found no significant difference between learning gains made by students in the eight schools using the materials and in the five schools not using the materials, there were two encouraging findings. All the teachers using the materials wanted to continue to use them and suggested they be used in all schools. Almost all the parents of children in schools using the materials had themselves seen their children using the materials at home and a high percentage of parents helped other children — usually herdboys — to use the materials.

Thirdly, we began to produce a four-page newspaper supplement called *Moithuti* (Learner), aimed at bridging the gap between basic literacy and making functional use of literacy skills. This was distributed monthly with the two most popular Sesotho language newspapers and had a circulation of more than 20 000, evenly divided between readers in Lesotho and Basotho in the mines in South Africa. This began in March 1979 and is still running. Informal evaluation indicates that it is widely used.

The future

The preliminary work done by the Centre to help young people to improve their literacy and numeracy skills is promising. If, on the one hand, distance-teaching materials can be used by literate villagers to help young people to gain some skills and, on the other hand, they can be used by teachers in schools, then it should be possible to help the same children study the materials both in and out of school. Boys and girls who have to drop out of school could continue to study in a more flexible system. A major project in one district of Lesotho, involving materials in school and group leaders out of school, should be undertaken to demonstrate this.

Chapter 3: Managing the Lesotho Distance Teaching Centre

Management skills are required in establishing a new institution — to provide clear goals and to motivate staff — whatever work it is to do. However, there are particular problems in setting up a distance-teaching institution, as the methods are not well known and their potential not understood. The skills involved — writing clearly and simply, producing a good radio programme, organising an efficient system to distribute booklets — are more often found in the media and business than in education. So the first part of this chapter looks at the ways in which the Centre managed the design, distribution and organisation of its learning materials.

There are also problems which are common to all developing countries: shortage of qualified staff; lack of training opportunities within the country; limited resources; and various staff divisions: expatriate/local, senior/junior. The second part of this chapter looks at how the Centre coped with some of these problems.

For any of our activities the first vital steps were to decide who we were going to work with and then which teaching methods we were going to use. Following those preliminary decisions, there were a number of stages: (a) the radio and printed materials had to be designed; (b) then any face-to-face teaching was organised; (c) the learning materials were distributed to learners; (d) and then we organised and supported the learning system. (e) The final stage was evaluation, when we found out how everything had gone. However, evaluation was also involved in each of the other stages.

(a) Designing and producing the teaching materials

The Centre concentrated on printed materials. These must be planned, written, edited, typed, proof-read, illustrated, laid out, tested, printed and collated. Each of these activities requires skilled people. On the production side, skills such as typing and printing (although usually in short supply and at a low level) are available in many developing countries. Skills such as layout and illustrating are less often available.

The basic production skills of typing, illustrating, layout and printing are vital to ensure a good finished product, be it poster, pamphlet, newspaper or correspondence course. And any organisation producing learning materials should have these skills and have them organised to cope with the different requests for production. It is often difficult to achieve this. Finding, training and keeping the right people and ensuring adequate supplies of paper, card, inks, etc., and regular maintenance of machines is obviously difficult. However, the difficulty does not lie in seeing what should be done, but with the practice. On the other hand, it is not easy to organise the writing and editing of distance-learning materials. Here the problem is not only one of routine supervision; there are also fundamental questions about the organisation of the writing process. This is particularly true of writing material which covers a lot of subject matter, such as a correspondence course on a particular syllabus.

Correspondence materials

Many correspondence courses in Africa are written in English for second-language speakers of English. Many of the students have failed to cope with the school system. The course must be written so as to be understood by all the students; convey all the essential subject matter; reinforce the subject matter and revise it; provide sufficient practice in the necessary skills; and give examination practice.

A writer who can do all this is an exceptional person. He must know his students and the conditions under which they will study. He must know his subject and how to convey it simply. He must know the English language and the difficulties second-language speakers have and he must know his medium, the printed page. In developing a correspondence course to be used by university-level private candidates in Britain, the Open University employs a course team with perhaps twelve members. These produce a course in two years. Obviously this allocation of resources is impossible for a small organisation like the Lesotho Distance Teaching Centre. However, we were concerned not to go to the other extreme and follow the example of some commercial correspondence colleges, which produce lecture notes written in a few weeks by a teacher working part-time.

We used a number of different systems to get courses written. These were:

1. A full-time editor/writer working with a group of part-time writers over a two-year period. We used this system with Sesotho and agricultural science. Unfortunately, the full-time agricultural science writer had to move to do other work and our system was modified to get the course completed.

2. A full-time writer/editor working for two years. We used this system to write our book-keeping and commerce course and our human and social biology at JC level; and geography, maths, principles of accounts and English at 'O' level.
3. A writing 'circus'. A full-time editor (not necessarily a subject expert) organising teams of writers to come together for one week at a time to write parts of a course. We used this system, together with the Botswana Extension College (now the Department of Non-formal Education of the Ministry of Education) and the Swaziland International Education Centre, to develop a mathematics course and an English course.

The first system was ideal. It allowed the widest possible input into the course, helped make teachers aware of the course and provided them with some writing training, while still having a central unifying control. Each of the other systems did produce a good course and the 'circus' system produced a course very quickly indeed.

Training course writers

Whichever system is used, the job of writing — or, in the circus system, of adapting and choosing — always falls on one person. This person needs a great deal of help and support in the initial stages of the course and will need some help throughout the writing and editing.

In the Centre, the writers' training was entirely in-service and the responsibility of the courses editor. The courses editor was responsible for all correspondence course production. New writers were given a reading list and an array of course materials. They then discussed this reading in conversation with the courses editor and other writers. They examined outlines of other courses and began to produce their own outlines. This got a wide circulation and the comments helped the writers to define their course materials even more precisely. Production of the first lesson was also a point at which the writer got a lot of input, and eventually the testing of the first lesson gave even more. From that point on the materials were checked mainly by the courses editor and a subject expert.

As well as getting comments and assistance from other writers and the courses editor, new writers were also helped by the evaluation section. This section helped them in developing lessons; providing a baseline of students' existing knowledge; and in testing lesson formats. In 1975, when we had hired our courses editor and first full-time writers, we did a test to compare the effects of various presentations on learning from correspondence lessons. We wrote lessons in mathematics, English, biology and book-keeping. We then prepared seven different versions of each lesson: one to include a summary at the

end, one to include behavioural objectives, one to include questions and answers at different points, etc. We then tested the lessons on 650 students, both in schools and studying privately. Although the results were not clear cut, the exercise was valuable as a training exercise for our writers and editors.

When our 'O' level maths writer began work, he needed a clear idea of the mathematical knowledge of successful JC students to help him to choose those topics that needed revision. With our evaluation section, he devised a 90-item test and the analysis of the results of about 200 students helped him to design his course.

All Centre writers now prepare their first lesson for testing. The evaluation section carries out the actual test and the writer observes students working on her lesson. The evaluation section also makes suggestions for rewriting as a result of the tests.

Writers also meet regularly, usually once a month, with the evaluator, student adviser and director to exchange views on course development and to plan the structure of the course. These meetings allow the evaluator or the student adviser to play a part in planning and developing a new course. Course writers are now co-operating in a series of seminars on course writing. These seminars are given by course writers themselves and they force the writer to read up a great deal on techniques of writing as he must present a paper at the seminar.

Instructional materials for rural people

We organised things a little differently for the design and writing of instructional materials for rural people. Again we had an editor in charge — this time called the instructional materials editor. However, at the beginning we had no full-time writers. Writing got done in a number of ways. For example, to write a self-instructional booklet on vegetable growing, the editor was expected to visit experts in vegetable growing, collect all the information necessary, organise this into a booklet and produce a draft for those experts to comment on. This first draft was in English, because some of the experts were expatriates. This was a slow process, but it did ensure that nothing of importance was left out. When the booklet was translated into Sesotho, the evaluation section was called in to pre-test it. A final draft was prepared from these comments.

If we were asked to design learning materials for another organisation, they usually supplied the content. We edited this and organised the presentation. Again, before production, the evaluation section tested it, to make sure that the sort of people who were intended to learn from it could understand it in the way they were meant to. In designing pamphlets and flip charts, or posters which fieldworkers

would use, the instructional materials editor often worked with the fieldworkers themselves to design the materials. At first he talked to them to get ideas, then produced a draft. Fieldworkers commented on the draft and it was re-done. Ideally, the evaluation section helps to test the draft materials by observing a fieldworker using them.

Today, as well as the instructional materials editor, the Centre has an instructional materials writer and two people designing literacy and numeracy materials. These work with the editor in the same way as course writers work with the courses editor, getting initial training, discussing drafts, planning deadlines and arranging for production.

Radio

Although the Centre concentrates on printed materials, it is obvious that radio has potential as a learning medium in Lesotho. When we learned, late in 1975, of Radio Lesotho's plans to instal two new medium-wave transmitters, we decided to begin to prepare radio programmes.

The range of skills necessary to design and produce a good radio programme includes: script writing; producing; acting; and assessing. The skills involved in the technical aspects of production and maintenance did not concern us initially, as we recorded programmes in Radio Lesotho's studios and with Radio Lesotho technicians. When we built and equipped our own studio in 1978 we were able to hire one of the first graduates of an electronics course being put on by the Lerotholi Polytechnic (and incidentally use the course organiser to help set up and monitor the studio equipment).

Script writing

Our method of scripting and producing radio programmes for private candidates changed over the years. When we employed a radio producer (who had worked for Radio Lesotho) in 1975, we began to develop a series of radio programmes in each of our first group of Junior Certificate subjects — mathematics, agricultural science and book-keeping and commerce.

We began with subject teams composed mainly of secondary teachers and teacher trainers, working together with one full-time Centre staff member — usually the course writer — to decide on format and to produce a list of ideas. Individual members of the team would choose topics and write scripts on these. The subject team would meet again to discuss these scripts and revise them. Finally the writer and Centre staff would produce the programme. This system worked in mathematics, insofar as the subject team produced a series of programmes. In both agriculture and book-keeping, the Centre course writers were the only

ones who produced scripts. The part-time team members all dropped out. Even in mathematics, the quality of the scripts varied from half a page of ideas to a full script with characters' emotions suggested and ideas for background noise given.

This experience prompted us to take on a full-time scriptwriter to develop new programmes in English and to revise the programmes in mathematics, agricultural science and book-keeping during 1976. The quality of these programmes depended to some extent on the subject expertise of the scriptwriter and in 1977 we moved towards our present system of developing programmes. This is to make it a joint effort of the course writer and the radio section, ensuring that the content is correct and the radio presentation is lively.

Programmes are checked by Centre staff at a number of points. When a script is prepared it is checked by a subject person for accuracy and by another senior staff member for educational effectiveness. Their suggestions are incorporated into the revised script and then it is recorded. We have always used Centre staff to act the different parts and over the years we have had some very good actors. Another senior staff member listens to the final recording and suggests changes or re-recording. We had great difficulty with the actual recording initially, as we had to do all our work in Radio Lesotho's studios before we got our own, and the time they could make available was limited. We rehearsed and tried out programmes in the Centre and then went to Radio Lesotho to do the final recording. We could not experiment with different sound inputs and levels there. In 1978 we equipped our new studio and employed a trained technician; now all our rehearsals are done and final programmes produced in our own studio.

The format

Our intention in developing our first radio programmes was to motivate our own students and to provide interesting programmes for a general audience. Each programme or small group of programmes was to stand on its own. We wanted to allow casual listeners to listen in at any time and to allow our own students to benefit, whatever their enrolment date. This intention has changed a good deal, as a result of our research into listenership, and as a result of our decision to integrate radio, courses and face-to-face study more closely. We are now concentrating on producing programmes which are directly useful to our own students. These changing intentions also affected our format. We began by providing a range of characters in villages or towns in Lesotho, who would run into subject problems which they would resolve. A subject person would then summarise the learning from the programme. Evaluation showed that our students wanted less drama and more direct teaching, so we are now using mainly a two-voice for-

mat, often a teacher and a student, always a learner and an expert, talking to each other about a subject, with the expert summarising at the end.

This format is obviously a lot easier to maintain than a village situation format would be, and it is also easier to find two 'characters' from among Centre staff than it is to find five or six.

Our radio work to support rural people, other organisations and herdboys involved mainly short one-minute spots. These were intended to convey a simple message and usually ended with a slogan — 'The Lesotho Family Planning Association is there to help you, the choice is yours', was one. The spots were to reinforce the message of our printed materials and the slogan would appear in the printed materials as well. Spots are obviously easy, and fun, to do. Our spots began with a signature tune fading into a one-minute situation and ended with a message. For a series of spots, the situations changed; the signature tunes and the slogans did not.

(b) Organising the face-to-face teaching

It is not as simple to design what a person is going to teach as it is to design a booklet or radio programme. People naturally take decisions for themselves and either do something different from what has been planned, or fail to do anything at all when they were expected to do something. Despite this (or, in some cases, because of it!) using people to help distant learners has a lot of advantages. Within a distance-learning system people need people: for reassurance, support, immediate feedback, explanations and a host of other reasons.

Our work for private candidates used people outside the Centre in two ways — firstly to mark exercises and secondly to run weekend courses. These were almost all teachers and experience elsewhere has shown that teachers teach. They feel most comfortable when they are explaining things and they do not often show people how to learn for themselves. Knowing this, we decided that was what they would do for us. On weekend courses, we did not expect them to help people to work through our correspondence courses. We gave them a topic and asked them to teach that topic. We only asked that they suggest follow-up exercises from our courses. We also organised orientation courses for new students each year. Our thinking here was that distance-teaching materials are new for most people and they need to be helped at the beginning to learn from them. The orientation courses were designed to begin people working on correspondence courses, planning their timetables and learning from radio. Because we were trying to help people to learn for themselves, we did not normally use teachers on the orientation courses. We used Centre staff who understood what was expected from them.

The 'teachers teach' problem became a 'people teach the way they are taught' problem when we recruited villagers to help young people become literate and numerate. We recruited villagers who were educated at least to primary level and interested in helping. None were teachers. We organised two training weekends for them, and met them regularly while the young people were learning, to pay them, and to monitor progress. Because payment was given at these sessions, attendance was excellent! The organisation was also excellent. Each villager recruited between 10 and 20 young people and met them three or four times a week month after month. Some groups met in the leader's home, others in the church, still others in the local school. However, we found that, almost without exception, the learning materials were not used as we had intended. Our workbooks and games were self-instructional and the villagers were asked to help the learners to use them. Observation of a number of groups showed that the leader set the pace of the learning. The workbooks were used as lesson plans by leaders and as a way to demonstrate learning. The games were hardly used at all, as both leaders and learners thought that playing the games was a waste of valuable learning time.

Despite not using the materials in the way we wanted them to be used, all the leaders were conscientious. They also taught us a great deal about the materials, telling us where there were difficulties and suggesting improvements.

The value of training courses for group leaders was underlined in our work with rural people. We contacted existing groups and asked them if they would like to study our 'how to crochet' booklet. Then we took the leaders of groups in one area and brought them together for a morning to plan how they would use the booklet in these groups. We also gave them posters to illustrate different steps. Two weeks after they had begun to use the booklet, we brought them together again to discuss problems.

In another area, we gave the booklets to the groups, but did not train leaders or suggest how the groups might work on the booklets. The results were quite startling. Where we had trained group leaders, three-quarters of the people who used the booklet learned all the crochet steps. Where we had not trained leaders, about one-quarter did.

(c) Distributing the materials

It may be obvious that people cannot learn from a booklet unless they have it. However, it is surprising how often that fact is forgotten. Our distribution methods are almost certainly unique to Lesotho. In each country, distribution possibilities differ. In one country the postal service is good. In another, inspectors regularly visit primary schools and

they and teachers are willing to distribute teaching materials. In another, there is an informal, but very efficient, distribution system, based on small shops. And in another, a major newspaper reaches every part of a country.

We used different distribution methods for each of our materials. For example, to distribute materials to private candidates we mainly used the postal system. A test of the system in 1974 indicated that the normal turn-around time to any of the larger centres of population in Lesotho was about three weeks. So a letter posted from Maseru to a village in the mountains could expect a reply in three weeks. While many of our students visit the Centre to enrol directly, a number enrol by post. We supplement the post using commonsense. Obviously, if we are holding a students' course, some materials can be distributed at the course. This is what happens for all our underqualified teachers, for example. Also one student can deliver materials to another. If a student or a tutor from a particular district visits the Centre, we can ask him or her to take materials to others in the same district.

To rural people

To distribute our booklets on practical topics for rural people, we used the fieldworkers of other organisations. We decided to charge the economic cost of each booklet, i.e. the cost of reprinting it. We did this for two reasons. As I shall explain in more detail later, we were anxious that the Centre should not impose too heavy a burden on the Lesotho government when they took it over. We also believed that people would give more attention to the booklets if they bought them than if they got them free. We were right about that, and people had no trouble finding the 10 cents required. Our problem, however, was to find a system of getting the booklets out to rural people all over Lesotho, and the money back to the Centre. Our first booklet was easy to get out, as CRS had clinics all over the country; they distributed them to the clinics for us and the nurses sold them. Even with CRS clinics, however, we had difficulty getting the money back, and when we began to distribute our other booklets using fieldworkers from a variety of different organisations, we ran into problems. Some fieldworkers were very enthusiastic, others looked on it as an extra chore. All had problems keeping a record of the money transactions.

We decided to hire a distribution officer to get the booklets out and the money back. This has had some effect, but it significantly increases the costs of distribution.

To other organisations

We had no trouble getting materials to the organisations who asked for our help as a service agency. One of their staff would simply call at the

Centre and collect all the learning materials we had produced. Very often, however, the organisations did not distribute the materials themselves, despite having a fieldworker network or an established distribution system of their own. When we evaluated the effectiveness of our support to one particular rural development project, to help to train villagers as agents to distribute seed and fertiliser, we found that many of the materials had not actually reached the villagers.

To herdboys

To get our literacy and numeracy materials out, we used our own fieldworkers — the group leaders — and later an existing newspaper distribution system. Because we used group leaders recruited in villages, and asked them to locate students themselves in our pilot project in 1978, there was no distribution problem. We gave the materials to group leaders at training courses and they gave them to the learners. Obviously this is an ideal arrangement. Since we paid the group leaders they saw the distribution of the materials (and the collecting of the small fee involved) as a part of their work. Also, since we met regularly, we could give supplementary materials at intervals.

Now we produce a supplement each month and this goes out with two Sesotho newspapers, *Moeletsi oa Basotho* and *Leselinyana la Lesotho*.

(d) Organising and supporting the learning system

Once people have learning materials, they must use them properly to learn. With a short, carefully designed, self-instructional booklet on a specific topic, that should not be too difficult; although, as I wrote earlier, we found that rural women had not used the cookery booklet as well as we had hoped. So we organised learning groups to work on the crochet booklet. This was very successful when we trained a group leader to take people through the booklet in a systematic way. Although people in other areas studied the booklets in groups, they did not learn significantly more than individuals did.

The system of learning followed by young people trying to become literate and numerate, and private candidates studying for examinations, was obviously much more complicated. There were different kinds of learning materials and much more to study. So we trained adult villagers to help the young people using our literacy and numeracy materials. While the materials provided the learning, the young people had to be shown how to use them and the order to follow. Also, when they learned something, this had to be reinforced. The work of the villagers was to do that — not to teach, but to organise learning.

For our private candidates, we organised orientation courses to help

them begin to study. We also gave each one a self-instructional 'how to study' booklet, designed by us for students studying our courses in Lesotho.

Another aid to getting motivated students was to make each potential enroller do a test lesson. On the basis of their progress through that lesson, they would decide whether to enrol or not. We hoped in that way that all enrolling students would be capable of studying our courses.

(e) Using evaluation

The research and evaluation section of the Centre was its single most important management tool. It provided preliminary research information which helped to decide whom we should help and which methods we should use. It provided information on the effectiveness of various learning materials before they were actually produced. It provided an ongoing assessment of a number of our activities and helped us to make changes in time. And it provided a final record of some projects — whether they had succeeded or failed — to guide us and others in our choice of future projects.

Appendix C lists all the Centre's evaluation reports and a look at the titles gives a clear idea of how widely we used the section. Here I shall give some examples of the ways in which we used evaluation. First, research. I have already explained how we used research to help us decide whether and how to help herdboys to become literate and numerate. The results of that research, *Reading, writing and arithmetic in Lesotho*, *Literacy and numeracy for life* and *Learning games*, decided us to begin to work with herdboys and also helped us to choose the methods.

When the Centre first began work in Lesotho and we were trying to decide how to help rural people, it was reported that the level of literacy was high. We were influenced to try to find out how widely printed materials could be used to help people to learn. With financial support from UNICEF we undertook a survey to find the actual level of literacy and numeracy in Lesotho and the ability of rural people to understand text and pictures. The report was called *Understanding print* and the results influenced all our work with rural people in Lesotho.

The second way in which we used the evaluation section was to assess learning materials. Almost everything we produced was first tested on the people for whom it was intended. If the results were interesting, we would produce a report. A correspondence lesson, for example, would be typed up and a number of copies made. Then we would test it on private candidates. *Pre-testing a Sesotho lesson* and *An alternative method for testing formal course material* describe some of this work. We would also produce a limited number of copies of our booklets and

leaflets and test these. *Family planning pamphlet: pre-test evaluation*, for example, describes how we tested (and amended as a result of the test) a pamphlet we designed for Lesotho Family Planning Association fieldworkers to use.

The evaluation section played a very important role in building in indicators for our different sections. The indicators allow the section to evaluate its own progress. In the student advice section of the Centre, for example, student characteristics are punched onto a progress card and assignment marks, attendance at weekend courses and other contacts are entered on this card. Every two months the enrolment clerk summarises the student's progress in each subject and this is circulated. The process of summarising also shows which students haven't been progressing well, and 'chivvy' letters are sent to them.

Each year after 1976 we analysed the progress of students through the different courses and produced reports on these: *Progress of LDTC correspondence students in 1976*, *Progress of LDTC correspondence students in 1977*, *Student progress — 1978*. These reports guided policy for the following year.

The fourth way in which we used evaluation was to produce reports on completed projects. *Learning to read, write and do arithmetic in village groups* describes how we helped young people to gain literacy and numeracy skills. *Distance teaching and road safety* is a record of how we helped the interministerial committee on road safety to get across the message that drinking and driving can be dangerous.

Each of these four ways of using evaluation is useful. If I had to choose which was most valuable I would probably say the provision of indicators of progress. This is because building in such indicators allows the evaluation to be carried out by the people actually doing the work. If they are conscientious they are likely to change their policy and approach to produce better results.

Evaluation for whom?

It is a real advantage to have a research and evaluation section within an organisation. The continued flow of information has altered and improved every one of the Centre's activities. However, there can be serious problems if the balance — between the independence of the evaluation section on the one hand and the needs of the management on the other — is not right. To oversimplify, it's not much good to an organisation if the evaluation section spends its time looking at the place of the apostrophe in the sentence. Neither is it useful if the evaluation section spends its time proving that management decisions are right. In the Centre we looked on the evaluator as a servant of the institution — providing information requested by the staff — for two-thirds to three-quarters of his time. The remainder could be spent col-

lecting information which would help provide an objective view of the Centre's activities.

Who reports?

All Centre reports were produced by Centre staff. One person — usually the evaluator — designed the research and drew up the report. However, Centre staff carried it out, it was commented on by all the staff concerned, the report was read and altered by senior staff, it was edited by Centre editors, typed by Centre typists and printed by Centre printers. Because of this, all reports were circulated as Lesotho Distance Teaching Centre reports. No one person's name went on any report. I think this reduced the temptation to research topics of interest to the international community — and therefore likely to be published — and focused thinking on the needs of the Centre.

Obviously when an evaluator finishes his work in an institution, all the data he has helped collect should be available to him to produce monographs, papers or books. Equally obviously, if the evaluator is asked to write an article for a learned journal he should do so — but in his own time. Producing reports for the outside world is very different from producing information to guide projects and too much of the first will harm the second. Evaluation cannot be done where nothing exists. It is useless if its lessons are not acted on. The building is of a serving evaluation section, with some independence, is essential both to good evaluation and to good programmes.

Managing in a developing country

Lesotho is a very poor country with few resources and low employment. It also has unique problems because it is surrounded by South Africa. Paradoxically, however, being surrounded by South Africa does have some advantages: supplies and services are easy to get and equipment can be repaired. Many developing countries have serious supply and maintenance problems. Lesotho does not. Lesotho also has another benefit possessed by few developing countries: a comparatively rich supply of educated manpower. Its long tradition of education has produced many 'O'-level and some university graduates.

So two very serious problems of the third world — access to supplies and manpower — are less severe in Lesotho. Nonetheless, these problems exist and the Centre's experience in getting and training staff, in allocating responsibility and in deciding on working conditions, may be of interest to other new institutions.

Recruiting staff in Lesotho

Any progress made by the Centre has obviously been achieved by its staff. We were very lucky to get so many able committed people, both

Basotho and expatriate.

In its agreement with the International Extension College, the Ministry of Education had undertaken to release three senior Basotho staff to the new Centre. While awaiting their release the Centre — consisting of a total of two expatriate staff — began to recruit a number of junior staff.

These posts were widely advertised and the better applicants called to interview. Each applicant interviewed did a test: for a typing post they typed something; for a printing post they ran the machines. Then they were interviewed. As the Centre grew, this interview was carried out by the director, the office administrator and the head of the section. We formed a workers' committee in 1976 and this committee talked to applicants as well. Their job was to see if the person would 'fit into' the Centre.

When it became clear that the Ministry of Education could not release the three senior staff, and we began to recruit for ourselves, we followed the same pattern: advertise, test and interview. In addition to advertising, we relied on personal contact to encourage particular people to apply. We offered the same salary scales as the civil service and did not promise the opportunity for training abroad. However, we did offer rapid growth and 'localisation' of senior posts.

Where we needed graduates, the numbers applying were usually very small, and often the same people would apply for each post. The three parts of the interview process: the test, the interview by the director and others, and the discussion with the workers' committee, were important. Despite a hundred applications for the post of artist, our test discovered that none could draw well. While the workers' committee very rarely advised against applicants, when they did their advice was invariably taken.

It was also very important in a country with a severe shortage of paid employment opportunities to have an objective recruitment procedure. Applicants could include relatives of politicians, friends and relatives of Centre staff and also, in some cases, staff members themselves applying for more senior posts. Unsuccessful applicants, and their friends, accepted the final choice without demur — because, I think, they could see that the procedures were objective.

Staff training

The preparation of courses and booklets, the design of radio programmes and spots, the organisation of fieldworkers' courses, all need skills. Writing for distance teaching is a new skill and our writers had usually been teachers. The transition from working in a classroom to designing materials to reach and educate adults is painful and long. As I mentioned earlier, we found that the solution was to surround them

with other people doing similar work and tackling similar problems, to help them to decide where they needed help and how they were going to get it within the organisation. Then we helped them to work out a realistic timetable for their work and provided them with a lot of feedback at the initial writing stages.

There are occasions when outside training is necessary. We found this particularly useful for short periods — up to three months. It was most useful where a person took a job to do along with her and got a variety of different inputs to that job. We never did this unless the employee had been with us for some time.

Higher degree courses were also sometimes necessary. Very senior staff need status to give an institution status. Senior staff also need the opportunity to get a new perspective. Where a useful higher degree programme exists, then it may be possible to build this into a seven-year period which would involve at least two years on the job followed by another five years bonded on return. The bonding should be agreed to by the individual and the government, as the training should benefit the institution.

Expatriate staff

Another very thorny question in a new institution is the use to be made of expatriates. It is often easier to hire expatriates than it is to hire local people, particularly if you have a tight budget. Suitably skilled graduates are available in developed countries and some donor can be found to pay for them. In addition, donors often look favourably on an application for funds which also applies for nationals of the country to which the application is made. However, we found that we needed to be very careful when recruiting expatriates. We usually had no control over the selection process and the criteria being used in the selection were not the ones we would have used ourselves.

We were also worried because we did not have control over conditions of service; these are always different from the local conditions. Big salaries, different leave arrangements and access to housing create a division between expatriate and local staff which makes it difficult to get work done. (In one large institution in Maseru people have recognised, and seem determined to emphasise, this division, by having separate international staff meetings and local staff meetings!)

Where possible we interviewed all expatriates or had the International Extension College interview on our behalf. And we insisted that all expatriate staff have the same leave arrangements and working conditions *within Lesotho* as local staff.

Another choice we faced when hiring expatriates was whether to bring in a volunteer or an expert. Often they cost us the same, as a donor would be paying the major part of the costs. Either choice

brought problems. In the main volunteers bring enthusiasm, energy, and often the willingness to accept difficult conditions. However, they can also bring naiveté and inappropriate ideologies. Experts, on the other hand, bring expertise in something, but they can often be rigid in their thinking and a little too self-important. Again, the ideal is to be able to interview, or have people with knowledge of your needs interview on your behalf.

The workers' committee

As our staff grew during 1975 we were concerned to allow an avenue for grievances which did not involve a direct meeting between the director and an employee. This threatened people, as they felt the director would hold the complaint against them later. They also felt that the director ought not to be embarrassed by direct requests and so they began to use the deputy director or office administrator. They would voice complaints or ask policy questions of them, and if the deputy or office administrator asked permission to bring this to the attention of the director, the employee was always happy for them to do so. The idea of an intermediary between director and employee seemed to be acceptable and so we asked people if they would like to have a workers' committee to look into staff working conditions, to hear occasional complaints, to organise social occasions and to help the director choose new employees. The staff liked the idea and elected three members in January 1976. A new committee was elected in 1977 and another in 1978. Over the two years 1976 and 1977, the workers' committee met regularly and helped referee staff disputes, prepare goodbyes to staff and organise the annual Christmas party. The committee also talked to all the people being interviewed for jobs in the Centre and reported on whether they would fit into the Centre. As well as saving us from hiring unsuitable staff, this also made staff more ready to help a new employee settle into the Centre, as they had a say in the appointment.

The biggest job the committee did was to draw up the working conditions of the Centre staff. They met a number of times and prepared a draft. This was discussed with the director and amendments suggested. Finally an agreed set of conditions were drawn up and distributed. The main principle guiding us was that salaries and working conditions should be similar to those in government. However, we amended these in two important ways.

First of all, we introduced a flexitime system. Some of our work had to be done at weekends and out of normal working hours. The Lesotho government policy is that all civil servants are on call 24 hours of the day. From our point of view it was unrealistic to expect our student adviser to work five full days and every weekend, so we allowed her time off in lieu of time worked over weekends. All staff could make flexi-

time arrangements.

A second difference was that we gave loans to staff for durable consumer goods or to help with building. The maximum advanced was one month's salary, to be repaid over six months or less. We also gave advances of salary occasionally, up to the amount an employee had earned at that time of the month.

Division of responsibility

A diagram of the organisation of Centre staff in 1979 is shown on p.58. Obviously this 'organigram' has developed over time and it may have changed since 1979. Certain points are worth noting.

The director, while responsible directly to the Permanent Secretary for Education, reported to a management committee, which had the Permanent Secretary for Education as chairman and representatives from the Ministries of Health, Community and Rural Development, Agriculture, Finance and Central Planning, as well as from non-governmental organisations. He was involved in the Lerotholi Polytechnic management committee and with a number of projects within the Polytechnic.

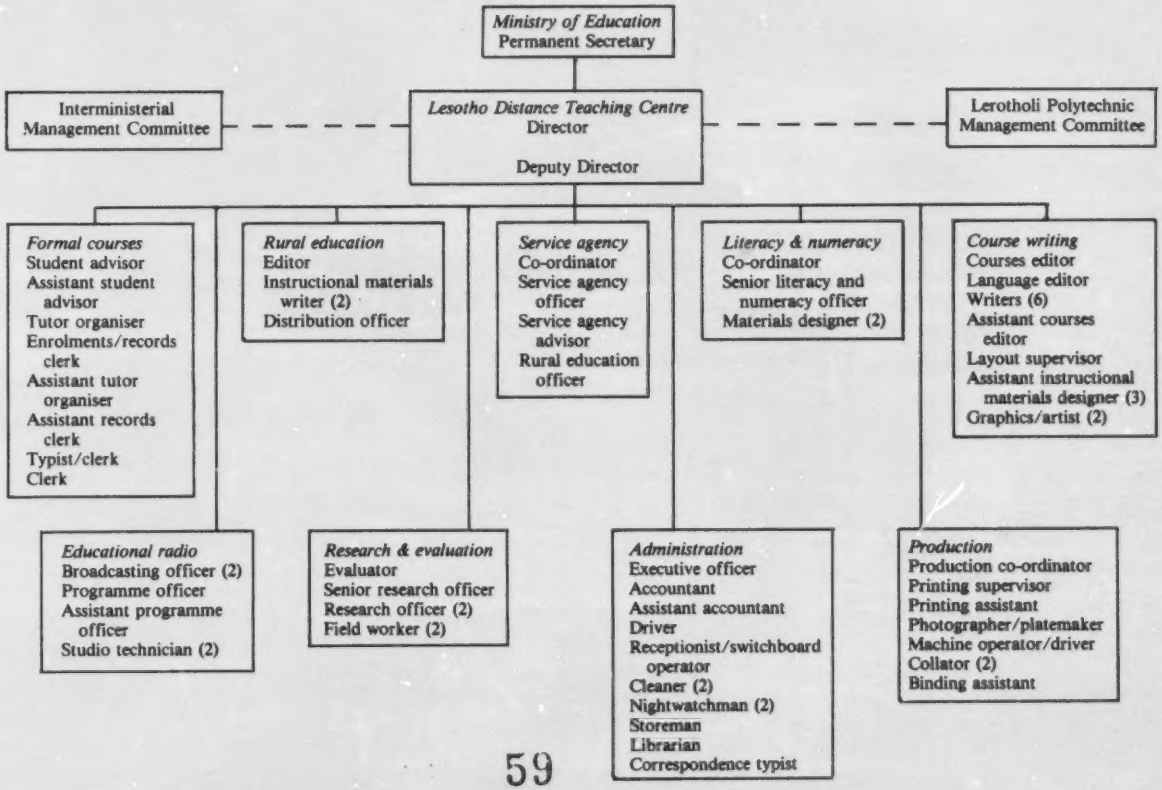
During my time as director, the deputy director took charge of the work with rural people, with young people and with other organisations, while the student advisor took responsibility for all work with private candidates and underqualified teachers. The evaluator, the executive officer in charge of administration and the person in charge of educational radio reported to the director. However, the deputy director co-ordinated their activities in rural education, while the student advisor co-ordinated their activities in relation to private candidates and underqualified teachers. The executive officer in charge of administration also supervised production. As the Centre has grown and staff have changed, the allocation of responsibilities has also changed.

If I personally learned any one lesson on management, it was the importance of good communications within the Centre. I met the office administrator every day and the student advisor and deputy director formally once a week to discuss policy. Section head meetings took place once a month and full staff meetings about once every three months. There were also meetings with the people involved to discuss progress on different projects.

Allocation of staff

I have explained that the 'organigram' has changed over time. Its neatness is further confused by a principle which we applied to the Centre from the beginning — no member of staff should be concerned exclusively with one activity.

Organisational Chart: Lesotho Distance Teaching Centre, 1979



Initially we were concerned to avoid a number of obvious dangers. First, we knew there would be a great demand for our correspondence courses and so we were concerned that this aspect of our work should not swallow up all our resources. Our Basotho staff, many of them ex-teachers, were familiar with the idea of correspondence education and we were anxious to educate them into the possibilities of other kinds of education. On the other hand we were also concerned not to allocate resources exclusively to these other divisions of education, so that they were never used to help private candidates. Over the first few years of the Centre's existence, all the staff were involved in one way or another with each of its activities. This became more difficult to achieve as the Centre got larger, but it is even more important now that the experience and lessons learned while developing materials for rural people should be applied to the problems of helping private candidates — and *vice versa*.

When the Centre was small we had no choice. Our first courses editor, for example, helped in the planning and development of materials for village distribution point agents with a particular development project. She was also a member of the group planning the first literacy and numeracy research programme. And all our staff members still get involved in some exceptional activities. For example, in January 1978, when we enrolled 360 underqualified primary school teachers in English, maths and Sesotho and they were all at the National Teacher Training College for a two-week course, almost every staff member was involved in the preparations for and the running of the course. Obviously production and layout people were involved in preparing materials and course writers gave classes during the course, but the deputy director in charge of rural education and the instructional materials editor also gave classes, while the broadcasting officer recorded interviews.

Our use of staff members to do a variety of jobs had a number of advantages:

1. Our staff became more aware of the different kinds of work being undertaken by the Centre and more committed to the Centre's ideas.
2. Staff also continued to take an interest in their jobs. A junior staff member collating books all day is not likely to be as happy as one who collates books for part of the time and also takes part in recording sessions or does field interviews. And senior staff members developing correspondence courses need to spend time on other activities to give them a break and to help them to adopt a fresh approach to their work.
3. Lessons learned in one activity were applied in others. We learned when testing correspondence lesson presentation that upside-down answers helped learning, so we applied the technique in developing

self-instructional materials for family planning field educators. The results of the survey to determine rural people's ability to read and understand printed materials were used primarily to influence our work on practical education, but we also applied the findings to designing our correspondence courses.

4. Replacements were easy to find. When a member of staff went on holiday, or even when a member of staff left, there were usually other staff members who had been involved with the work and were able to take over.
5. Involvement in all the different activities prepared our staff to take over more senior positions. A staff member who works with private candidates and then develops radio programmes on family planning for rural women is more likely to be aware of the potential of distance-teaching methods than one who has worked only in one or the other activity.

The legal establishment of the Centre in Lesotho

I have explained the history of the Centre in Chapter 2. It was initially intended to be one arm of the Lesotho Institute for Further Education — a body which receives support from the Ministry of Education, but which is not directly controlled by the Ministry. For its first two or three yeas the Centre had no legal existence of any kind. In retrospect that was the ideal arrangement. Too close control by the Ministry of Education might have concentrated the Centre's activities on its work for private candidates. Certainly, each year when students were being enrolled in secondary schools and many were unable to find a place, the Centre's role was questioned. Senior officials believed it could and should help the students. The lack of control helped us to resist.

The undefined status also caused problems. When we advertised senior posts, people were reluctant to move from established positions within the civil service to the relative uncertainty of a new organisation with no long-term security.

In 1976 we began to negotiate our long-term establishment within the civil service in Lesotho, and as a first step in this we became a special project of the Ministry of Education. This did little more than recognise our existence and our primary function — education. It also regularised our receipt of funds from outside Lesotho and through the government. However, it did not establish positions or ensure permanence.

The following year we established a management committee for LDTC. This had the Permanent Secretary for Education as chairman and representatives from the Ministries of Health, Agriculture, Rural Development and Finance. It also had representatives from a number of non-governmental organisations. The formation of the management committee hastened the Centre's establishment within the Ministry of

Education, but with some autonomy. We drew up a document which was sanctioned by the management committee and approved by the Ministry of Education. In 1979 the Lesotho parliament passed the Lesotho Distance Teaching Centre Fund Regulations, retroactive to April 1982. This allowed the Centre to keep its own bank account and to establish new experimental projects with outside funding.

At the same time a number of Centre positions were established within the civil service, and the government of Lesotho will pay almost all staff salaries from 1981. It will also pay most of the Centre's other recurrent costs.

The transition — from independent project to established part of the Ministry of Education — is now almost completed and represents a major landmark in the Centre's development. It was made easier because decisions taken over the first few years of the Centre's life were guided by the intention to become a part of the Ministry. A number of projects established in developing countries have failed at the point of government takeover. I think many have done so because they wanted to achieve particular short-term results and took steps to ensure these which involved high salaries, large numbers of expatriate staff and unusual supply arrangements. When the time came for the government to take over these special conditions ceased to apply and the projects collapsed.

Chapter 4: Money matters

Government support

It became clear very soon after the Centre began work in Lesotho that we would need to prove the methods and their effectiveness before the Lesotho government would undertake to run the Centre. Obviously our work should provide this proof.

We always assumed, however, that the government would take over the Centre at some point, and this affected our financial planning. For instance, it became clear when we had done some good work in Lesotho, and a number of donors guaranteed support, that other donors would support any new projects we wanted to undertake. In deciding on new projects, we were influenced not only by the commitment of people in Lesotho to the work, but by the long-term financial implications of running the project. Donors might provide funds for three or four years, but at some point funding would stop and the Lesotho government would be obliged to take over. Obviously the more economic we could make the running costs, the less of a burden these would be on Lesotho's limited finances.

With our service agency work, private candidates' support and help for rural people, we were concerned to charge a fee which would cover the costs of the learning materials and the staff time involved in administering these materials. We were much less concerned about the cost of a building or furniture, as these were a once-off cost.

In our work for rural people we were concerned with the cost of printing a booklet, the costs of getting the booklet out to people and the costs of supporting group leaders. Whenever the booklets were used to provide learning these costs would have to be met. On the other hand we were less concerned about the costs involved in writing, testing and illustrating the booklet. These were a once-off cost (or at least would need to be met only once in the 7- to 10-year life of the booklet).

Income

The table below shows the centre's income in Maloti from its work in Lesotho. The figures have been rounded to the nearest 100, and are the actual amounts earned each year.

	Service agency fees	*Private candidates (less payments for textbooks)*	*Sales of games and booklets*	*Literacy and numeracy fees*
1974/5	1 600	100	—	—
1975/6	4 400	700	—	—
1976/7	19 100	3 100	700	—
1977/8	19 900	7 600	1 700	—
1978/9	26 000	30 100	3 100	900
Totals	71 000	41 600	5 500	900

The figures demonstrate that — like any other ordinary educational body — the Centre could not become a self-financing operation. It inevitably required finance from within or from outside Lesotho.

The two programmes that brought in most money — acting as a service agency, and helping private candidates — have expanded incomes as a result of donor support for other organisations. One of the main sources of service agency income, for example, was our work for the Lesotho Family Planning Association. The Association paid for this work with funds from USAID.

In support for private candidates the earnings are increased by the 366 under-qualified teachers whose fees were paid by the National Teacher Training College with funds received from the Netherlands government.

What did it all cost?

The arguments for distance teaching invariably include its economical use of scarce resources. Distance teaching is sometimes cheaper than more conventional education systems, but when is it cheaper and by how much? And is it cost-effective? In other words, does it cost less to produce a successful learner (judged on examination passes or the learning of a new skill)?

The rest of this chapter presents some of the costs of the Lesotho Distance Teaching Centre. Firstly I shall give the cost of establishing and running the Centre over the first five years. Secondly, I shall allocate costs to certain of the different activities of the Centre. Finally,

I shall try to work out how much it cost to teach someone successfully how to crochet and how much it cost to help someone to pass a Junior Certificate examination in mathematics.

Establishment and running costs

The table below lists the actual capital and recurrent costs of the Lesotho Distance Teaching Centre between 1974 and 1979, in Maloti. The figures are approximate for two reasons. First, we received a number of donations in kind and I have had to estimate what these cost the donor. Secondly, a number of donors provided people and paid the salaries themselves. Again I have had to estimate the amounts. However, I am confident that the approximations are realistic and that the total cost over the five years was very close to one million Maloti.

Year	*Capital (Maloti)*	*Recurrent expenditure*	*Total*
1974/5	7 600	23 100	30 700
1975/6	22 000	48 600	70 600
1976/7	111 900	97 200	209 100
1977/8	170 800	193 200	364 000
1978/9	34 900	310 600	345 500
Totals	347 200	672 700	1 019 900

For expatriates whose salaries were not paid by the Centre I estimate costs of M12000 in 1976/7, M14000 in 1977/78 and M16000 in 1978/9. A very senior officer in the Ministry of Education would have been paid about half of this.

Our building programme, five staff houses in 1976/7 and the new office in 1977/78, accounts for much of the capital expenditure. This should be no more than M20000 a year from then on. Recurrent expenditure should level off at around M400000 and increase in line with inflation.

Allocating costs

When trying to find out how much each activity costs to run, we have to divide certain costs among the different activities. Some staff, like the evaluator, worked on all the different activities and part of their time

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has to be allocated to each. Some sections, such as printing and radio, also contributed to each activity, and their costs must be divided up. An attempt to do this is made in the table below. In the breakdown of the Centre's activities for 1978-79 the division was made on the basis of staff time, and the costs of transport, paper, etc., were allocated to each activity in proportion to these. The breakdown does not include the salaries for some staff paid directly by the Commonwealth Secretariat and the Danish aid agency, DANIDA.

Looking at this allocation, our work to help rural people and act as a service agency cost M59 300 in 1978/79 and our work to help private candidates cost M113 500. However, this does not tell the whole story.

Development and running costs

An allocation of M16 534 is shown in the table for course writing. If we add the salaries of course writers paid by CFTC, we get the estimated cost of writing Centre courses in 1978-79. It would not be correct to add this to M113 547 and get a total figure for assistance to private candidates in 1978-79. These are the costs of writing, editing and illustrating courses and they should be allocated over the life of the courses they produce. For example, if it costs M100 000 to write, edit, illustrate and type (but not to print) six correspondence courses, that money will not be spent again until it is time to rewrite the courses — perhaps five years. So the costs should be spread over five years — M20 000 a year, if we ignore the interest we lose by investing in course development rather than in the stock market. If we include a notional 7.5% interest, the figure is M24 716. This is equally true of the costs of developing booklets for rural people. These costs will not be incurred again until the booklets are rewritten. In the meantime, the costs to the Centre are the costs of printing and distributing the booklets.

As I explained earlier, in undertaking new activities we were always more concerned about the running costs than the writing and developing costs. We felt that running costs should be covered by fees from learners, thus reducing Lesotho's expenses in running the Centre. Our fees for private candidates were based on this principle, as were the charges we made for our booklets. We also costed all our service agency activities on the basis that we should not lose money. Our work for the Ministry of Education was charged at the cost of the materials only, while for other Ministries and some non-governmental organisations we charged for materials and labour. Work for other institutions was charged at the cost of labour, materials and overheads — for those which could afford it. It is important to bear in mind, when looking at the costs of running each of the different activities above, that to establish and run any one of them by itself would probably cost much

Summary of the Centre's expenditure 1 April 1978 to 31 March 1979 (in Maloti)

	Supporting activities[a]				*Teaching activities*[a]				
	Administration and overheads	*Production*	*Research*	*Radio*	*Rural education and service agency*	*Literacy and numeracy*	*Private candidates*	*Course Writing*	*Totals*
Staff & training	33720	23844	7617	9844	17498	15294	17604	8656	134117
Tutors	—	—	—	—	—	—	9149	—	9149
Course materials and programme costs	4006	44897	2046	4976	3863	7536	3130	2100	72554
Travel	3387	1150	2493	784	2360	2648	1963	1156	15941
Depreciation	450	6708	106	1408	156	244	309	72	9453
Subtotal	41563	76599	12262	17052	23877	25722	32155	11984	241214
Reallocation of supporting activity costs[b]					35439	21304	81392	4550	
Total	—	—	—	—	59316	47026	113547	16534	241214[c]

Notes

a. For convenience, we divide the activities of the Centre into supporting costs, where we cannot attribute expenditure directly to a programme of teaching, and teaching (or project) expenditure, where we can.

b. In this row, in order to work out the total cost of each part of the Centre's teaching activities, we allocate all the supporting costs to the four teaching headings.

c. The discrepancy between this figure and that for recurrent expenditure shown in the table on p.65 is mainly accounted for by salaries/supplementation of expatriates paid outside Lesotho.

more than it cost the Centre. Because the Centre carried out a number of activities, there were economies. The printing and radio sections, for example, were cheaper because their costs were shared between a number of different activities. It would be a useful exercise to compare the costs (and the effectiveness) of the Centre's help for private candidates with those of an organisation doing only that work.

Costs per learner

Costing becomes very difficult indeed when you try to find out the cost per learner of any one activity. Firstly, you must define exactly what is meant by a learner. Is it somebody who gets the learning materials, or is it somebody who demonstrates that she has learned from them? For example, if we enrol 1 000 private candidates, do we divide the total costs of helping those private candidates by 1 000 or do we wait and see how many of the 1 000 pass the examination and divide by that number, thus getting the cost per 'successful' learner?

The costs of learning to crochet

When we distribute a crochet booklet to 10 000 women, how do we find out who has successfully learned — given that some people may remember everything in the booklet and do nothing, others may remember little but have made clothes using the booklet, or still others may not use the booklet for two years but may then make clothes with it?

Despite the difficulty, we attempted to do this and came up with the following costs based on the results of an experiment. We produced a crochet booklet and sold it to individuals and then later measured the numbers who learned from the booklet. 24% learned everything and a further 16% learned something. We distributed the same booklet to groups, trained the group leaders and helped them to run their groups, and then measured the numbers who learned from the booklet. 67% learned everything; a further 18% learned something.

Using these figures and assuming a random sample, we were able to estimate the *lowest* percentage of people likely to learn from the booklets. We used these estimates and the actual costs of developing the booklets and distributing them to individuals, and came up with the first set of figures on p.69.

We did the same exercise for groups. Working out the costs of developing materials specifically for groups, training leaders, distributing the materials, etc., and again using the lower percentage of successful learners based on our experiment results, we came up with a second set of figures.

Approach	*No. of people exposed to materials*	*Total cost to Centre (Maloti)*	*Category of learner*	*No. of successful candidates*	*Cost per successful learner (Maloti)*
Sales to individuals	10800	4826	Learn everything	1300	3.71
			Learn at least something	3020	1.60

Approach	*No. of people exposed to materials*	*Total cost to Centre (Maloti)*	*Category of learner*	*No. of successful candidates*	*Cost per successful learner (Maloti)*
Materials-using groups	15000	4523	Learn everything	840	5.38
			Learn at least something	1160	3.90

Each successful learner costs almost twice as much. However, we would be successful with a higher percentage of learners if we used groups.

Finally we looked at the costs of running groups if we used materials which were already produced for individuals — the actual case with the crochet booklet. We found that the cost per successful learner came down to M3.30 for those who learned everything and to M2.39 for those who learned at least something.

Although an allowance for overheads is included in the calculations, these are not the total costs which would need to be met to start something like this from the beginning. The figures are nonetheless interesting. Simple crochet skills can be taught using booklets or groups or both, and the costs are reasonable. On the other hand, teaching people to successfully pass a Junior Certificate mathematics examination is a much more costly exercise.

The costs of passing an examination

In 1977 students enrolled with the Centre for 275 courses. They were given the correspondence materials, helped by means of marking ser-

vices, residential courses and radio programmes, and expected to study for two years before taking an examination. In 1978 students enrolled for a further 1 519 courses (the 360 teachers in service, each studying three subjects, made up 1 080 of these). In 1978, therefore, we could assume that students were studying a total of 1 794 (275 + 1 519) courses. The total amount spent on helping private candidates in 1978/79 was M113 500. M113 500 divided by 1 794 gives M63. Each year, therefore, it costs M63 to help a student study one course. Students were expected to study for two years, so the cost of helping a student to study one course up to examination standard was M126. This is not the total cost. There is also the cost of writing, testing and developing each course. We estimated these costs at between M30 000 and M60 000. (The first figure applies if a Mosotho writes the course, the second if an expatriate does.) Taking the average as M45 000, and assuming the course will be used for seven years, at a 7.5% social discount rate, the cost is M8 500 for each year of the course's life. The Centre enrolled about 200 students for a course each year. The cost per student therefore is M42.50 (M8 500 divided by 200). Adding together M126 and M42.50, the cost of helping a student to study one course becomes M168.50. It is worth thinking about that figure before reading on: M160 = £91 = $218 (October 1980).

High as this figure is, it does not tell the whole story. It costs M168.50 to help one student study one course for two years. Many students may drop out, and if only a third complete the course and a quarter actually pass the examination, then the cost is M506 for completers and M674 for exam passers. (We could go further and estimate the costs of helping one student to study and pass the six subjects necessary for Junior Certificate — M4 044. However, this figure is probably too high.)

There are obvious economies to be made. For example, enrolling 400 students each year (instead of 200) halves the writing and development costs. Another obvious way to economise is to increase the success rate. The teachers studying in service did much better than other students, and if similar groups could be enrolled the costs per successful learner could be cut (not as much as it might appear, however, as the in-service teachers were also helped by the National Teacher Training College and these costs should be added).

These costs are difficult to assess on their own. It would be interesting to compare them with the costs of other methods of achieving the same result. However, no other national education system exists in Lesotho for adults.

It would be possible to calculate what it costs the school system to enable a student to pass the Junior Certificate examination in one subject, but it would be wrong to compare that figure directly with the

M674 that I have estimated it cost the Centre. School students study full-time and therefore forego earnings. Many Centre students were working while they studied. So some account must be taken of the earnings foregone by school students.

The Centre is also able to help people in circumstances difficult for the school system: in very remote areas; travelling frequently; working unusual hours. Again, some account must be taken of these factors in any comparison of costs.

Donors

It would be wrong to finish a chapter on money without mentioning donors. We were involved with all types: governments, international organisations, foundations, charities and trusts. Without their support the Centre might not exist today. Appendix A lists those that supported us.

However, being on the receiving end is not without its problems. Often, we built up false hopes after meeting a visiting representative of a donor agency, discussing our work and needs, and showing our activities. Such visitors were usually full of praise for the work they saw. I cannot remember how many times we had our hopes raised and were led to believe an application from us would bring financial help. In practice, however, it did not always work this way, and we wasted time which could have been used for our real work.

Over the years we learned that donors differ from each other. They have their criteria, often coloured by their own politics, which may specify the outcome they want to see, and consequently the areas to which they give priority. Very often they say they will support a programme aimed at youth, women or rural people, but at times their criteria are not specific and applications get turned down. The sorts of reasons given for rejecting an application are:

'You are asking for too little.' We were never told that we were asking for too much, always too little. Donors usually say that it is not worth their while to administer sums of less than a particular amount and the amount usually made our hair stand on end.

'You want money and we give only people and equipment'; or 'You want people, we only give buildings', and so on. This is another very common donor's cry. Ask us for people — you can have them. Ask us for buildings — you can have them. Ask for equipment — you can have it, but do not ask for money to do things in your country — we cannot give that.

'You do not fit our criteria exactly.' Donors often limit their aid to a particular group: rural people, adults, primary-school children, or whatever. For example, wanting a donor to support an educational activity to help young people out of school, we were told by one represen-

tative of an international agency that they would support us if our target group were boys aged between 8 and 15, and women. The idea of an educational project working in villages in rural Lesotho but excluding herdboys if they are 16 years old is ludicrous. How can a fieldworker explain it to a herdboy?

Then there is the difficulty that different organisations have different fiscal years. Also, some donors consider applications yearly, and others at intervals of two, three or sometimes five years. If for any reason you miss their deadline, you have to wait for the next such exercise. Imagine what will happen to your project in the meantime, unless, of course, you find an alternative source of help. A project which is ready to move, with committed staff, a waiting target group and a clear idea of what is needed cannot remain static while waiting for a donor to provide the missing staff, equipment and money to make it happen. Either the project goes ahead anyway, in the hope that the money will arrive, or the staff will go on to other jobs.

In some cases you are required to spend money before the donor will release it. This often made the Centre's work more difficult. but many donor organisations insist on it. If you have no money to begin with, they will not help you. With the Centre we were lucky to have some blanket support and so we were able to spend on the project headings, claim the money back and then use it for the purposes for which the blanket support was given. Had we not had this money, some of our projects would have been stillborn.

You cannot deviate from the agreed budget. The longer the delay between the drawing up of an appeal and the arrival of the funds, the more likely it is that the original proposal will need alteration. However, even where there is no delay and funds arrive immediately, the running of a project with built-in formative evaluation may differ significantly from the original plan. No person with any commitment to helping people will stick to an original plan if it is failing.

A project which sets out to help mothers to make clothes better should not become something that provides toilet seats for schools, but a project that sets out to help women make clothes better by using evening classes in secondary schools could help those women by organising self-help groups in villages, getting patterns and radio guidance. The donor should be able to assess the formative evaluation evidence and see the need to change. Many donor agencies are able to do this, but some appear to be less concerned with the project's success than that their own administrative procedures are followed.

Despite its early financial difficulties, the Centre was extraordinarily lucky to find so many flexible, well intentioned and understanding donors. Those that helped most were the people who had a very real in-

terest in what we were trying to do and an awareness of the problems we faced; in short, people who shared our own ideals and views on implementation and who would discuss changes that needed to be made in the light of the job to be done.

I shall mention two donors here without naming them. The first gave us a back-up support grant over a four-year period, starting in 1975. This grant had no strings attached, except that it be spent to develop the Lesotho Distance Teaching Centre to realise its aim of using distance-teaching methods to bring education to more people in Lesotho. This money allowed the Centre a freedom to experiment and develop that it could never otherwise have had and in the long run I believe the donor is very satisfied with the investment.

A second grant worked like this. The donor's representative, who had been involved in work similar to the Centre's and who knew our problems and difficulties, asked what we would do if we got M20 000 a year for three years. We told him — he asked us to write it down. We all discussed the draft. He went away and the money arrived two months later: an ideal arrangement, which happens too seldom.

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Chapter 5: The lessons

This is the last chapter. It is intended to examine the lessons which the Lesotho Distance Teaching Centre can offer other countries and people establishing distance-teaching institutions. As such, all that is written in this chapter is subjective. Others involved in the Centre may disagree with some of what I have written and point to other lessons. I believe all would agree that a distance-teaching institution, given adequate political and financial support and a sufficiently wide role, could make an enormous contribution to the education of people in developing countries.

The chapter is in two parts. The first part looks at the benefits to be gained by establishing a distance-teaching unit in a country; the second part gives some advice for people involved in establishing such a unit.

The benefits

One lesson from the Centre's experience is that a distance-teaching centre provides a flexible mechanism to mount national educational campaigns. I wrote earlier of our work for the inter-ministerial road safety committee, which provides a small example. Another example was our work for the Bureau of Statistics, helping them to inform the public about a national census conducted in 1976. We worked with them to design a simple booklet explaining the purpose of the census and the need for the different questions. 100 000 copies were eventually distributed.

One of the major problems in Lesotho is soil erosion. I have no doubt that the Centre could be used to help the Ministries of Agriculture, Education and Rural Development to mount an effective campaign to inform people of the causes and dangers of erosion and to begin a national soil conservation effort.

The success of the Centre's work as a service agency in Lesotho provides another lesson for other countries. A wide range of the organisations involved in education out of school used the Centre to advise them and to design and produce materials for them. Because of this, many of them are co-operating with each other to rationalise and co-ordinate their efforts. The Centre's work helped to increase the effectiveness of institutions providing education out of school.

Both outside and inside schools, the Centre was able to provide in-service education for a variety of occupations: teachers, nurses and fieldworkers are three examples. Our work with underqualified teachers in service in schools was very successful, as was our work helping fieldworkers from a number of different organisations.

The range of the Centre's activities was wide: from running a national campaign on drinking and driving, through producing hints on how to study, to providing literacy and numeracy skills for young people out of school. Other countries have different needs and resources. A distance-teaching institution can use resources flexibly to meet some of the educational needs.

Still another lesson from the Centre's experience in Lesotho is that distance-teaching institutions may be able to co-operate with the school system to provide a more flexible system of national education. The Centre's learning games for herdboys were successfully used in primary schools, and teachers in secondary schools used our correspondence courses. A co-operative effort might use the school system to more advantage. A distance-teaching institution will not, by itself, be able to solve the problem of providing secondary-level education for all those who cannot get into secondary schools. In Lesotho, despite well written correspondence courses, good radio programmes, a helpful support system and limited access, only a quarter of those who enrolled actually passed the examination.

Another lesson for countries thinking of establishing a distance-teaching institution may be the most compelling of all. It is cheap to establish and cheap to run. The costs of establishing the Centre, erecting a building, buying all equipment, paying staff and other running costs, came to just one million Maluti over the five years 1974-79. It is also possible to retrieve some of the costs of running the institution by charging fees to users.

The final lesson has not yet been proved in Lesotho. However, I believe that the Centre has made a significant contribution to bringing together education in schools and that provided outside schools. A distance-teaching institution fits comfortably into both systems of education. Ministries of Education view the correspondence courses with approval and later begin to appreciate the rest. Other Ministries and organisations providing education out of school welcome help with their work and gradually come to appreciate the educational expertise. Education in schools can be sterile unless the curriculum, examples and methods are relevant to pupils' lives. Education out of school is often directly functional, but amateurish in its methods. The provision of education on health, agriculture and family life needs careful planning and focused methods.

In summary, the lessons I would take from the Centre's experience

are that a distance-teaching institution:

— provides a flexible mechanism to respond to educational challenges and to mount national campaigns;
— can help to co-ordinate the efforts of the many organisations involved in education out of school;
— can provide in-service education for a variety of occupations;
— can provide education over a wide range of topics;
— may be able to co-operate with the school system to provide a more flexible system of national education;
— will not, by itself, solve the primary-school leaver problem;
— is cheap to establish and run;
— will increase contact betwen the school system and those providing education out of school.

Establishing a distance-teaching institution

However, the intention to establish a distance-teaching institution is not sufficient to make it happen. If the institution is to serve its country fully it needs to be planned carefully and given support and assistance, particularly in its early years. Looking back at the way in which the Lesotho Distance Teaching Centre has developed, there is some advice I would give to others beginning to establish similar institutions.

1. First, *get the educational aims agreed by everybody and make sure they are very wide*. The Centre was able to balance its work for private candidates with its work for rural people because both were agreed from the beginning. Many Ministry of Education officials would have had us limit our work to the support of private candidates.
2. *Set up the institution on an experimental basis* with the first two years set aside for pilot projects. Ideally no long-term programmes should be planned until the end of that period. Because the Centre began in Lesotho with little fanfare and almost no support, it was left to its own devices for the first few years. Paradoxically, that was the best thing that could have happened, as it enabled us to see what should be done and what could be done without too much pressure to show results. It would have been ideal, of course, if we had been encouraged to do just that, as a result of the different Ministries and organisations in Lesotho realising that that would best help us to develop.
3. *Build up slowly*. The Centre began in a small way and grew. That helped give staff confidence. It also helped that we concentrated first on the development of printed educational materials, becoming acknowledged experts in that before going on to radio and group work. Ideally, a new institution should develop one medium

at a time and begin pilot projects rather than national programmes.

4. *Choose and train staff carefully.* All Centre staff did a test and were interviewed. They all had considerable experience within the Centre before going elsewhere for training. Selecting the staff for any new institution is one of its most important tasks. This needs commitment and a good recruitment system, involving both the administration of the new institution and expertise from within the country. Training should normally be internal. Where this is not possible, the person going out of the country should have worked for at least a year and be bonded to work for four or five years on return.
5. *Get the institution's long-term role and its management structure and allocation of responsibilities defined.* The Centre's management structure, with representatives from Ministries other than Education and from non-governmental organisations, helped to define its role broadly. Within the educational system, it was the only body involved in distance teaching. Any new institution needs a clear role from the beginning and must develop a strong management structure.
6. *Examine the long-term cost implications of all programmes.* Our takeover by the Ministry of Education was helped by the economy of our programmes. Where possible, we planned our activities so that the running costs would be paid by the learner. Any new institution should plan programmes with future running costs in mind.
7. *Provide a flexible service.* The Centre's flexibility was very important in establishing it in Lesotho. Doing a variety of jobs also helped us to choose carefully the long-term programme we would undertake. Any new institution should postpone the decision as to its major activities and programmes. Doing a variety of different jobs will give staff experience, maintain interest and help final decisions on long-term programmes.
8. *Build in evaluation.* All the Centre's activity has benefited from evaluation, to provide research information, to pre-test materials, to give indicators as to progress and to assess finished projects. The decision to have built-in evaluation forces a new institution to plan its activity carefully, and an evaluation unit can provide much of the information the new institution needs to enable it to take decisions on types of activities and which media to choose.
9. *Combine the media.* There are indications from the Centre's work that people learn more from a combination of approaches than they do from one alone. A survey following our road safety campaign indicated that people who heard the radio spots and saw the posters remembered more than those who only heard the spots or

saw the posters. Similarly, people learned much more by working in groups on the crochet booklet. I wrote earlier that a new institution should develop capacity in one medium at a time. However, it should not expect people to learn using only the one medium. As skill and expertise in one is built up, the institution should begin to provide support using a second.

10. *Organise the learning support.* Although people can learn from print and radio, they need encouragement and support. One of the lessons from the Centre is that only a small proportion of people learn independently. The majority need a learning environment. Our booklets reached people, and some used them. However, only a quarter learned everything from them. When people were organised in groups and their leaders trained, more than three-quarters learned from them. About one-third of the private candidates who enrolled with us did very little else and only one-third completed all their courses. Yet of the 360 uncertificated teachers who enrolled, over 300 completed all the course work. It is very difficult to isolate the factors involved in good learning support, but they must include: learner motivation, removal of learner isolation, and immediate learner encouragement.

In conclusion

Each developing country has its own unique system of education. In some teacher training is carried out by the church, in others by the state. Some countries have a long tradition of primary schooling; others began relatively recently. If the Centre has achieved any success in Lesotho, it is because it has been flexible enough to build on the educational strengths already there, using Lesotho's graduates to provide staff, its teachers to provide marking and support services, its educated villagers to organise groups and its many organisations involved in out-of-school education to use distance-teaching materials. A distance-teaching unit in any other developing country is likely to be successful if it also builds on the strengths of the existing systems of education and does not attempt to work in isolation.

Education should not be a static process. It serves society by responding to its changing needs and widening culture. In a developing country changes are rapid. The Centre's major contribution to Lesotho may be that it provides a mechanism which will allow Lesotho to respond quickly and effectively as its educational aspirations develop.

Appendix A: Donors

In addition to the Lesotho government, the following donors contributed to the formation and running costs of the Lesotho Distance Teaching Centre over its first five years. The order corresponds to the size of contributions up to the end of 1979.

Government of Ireland
World Bank (Training for Self-reliance Project)
NOVIB, through the International University Exchange Fund
USAID
NOVIB directly
UNICEF
World University Service (Denmark)
Christian Aid
Royal Danish Consulate
British government (Overseas Development Administration)
International Extension College
World Education
Maseru Round Table

The following contributed personnel:

Agency for Personal Service Overseas (Ireland)
Commonwealth Fund for Technical Co-operation
Danish Voluntary Service

Appendix B: Lesotho Distance Teaching Centre publications (up to December 1979)

Service agency publications

Gully Control and Reclamation
Trainers' spinning manual
Nutrition colouring book
Tree planting pamphlet
Photo strips
Rankakala survey

A Service Agency for Distance Teaching
Establishing a Service Agency — Some Points to Keep in Mind
Service Agency Work in LDTC
Education for Family Planning in Lesotho
Distance Teaching and Road Safety

Assorted leaflets (in Sesotho) on different topics:

Cowshed pamphlet Handbook for VDPAs (also in English) 6 VDPA Newsletters Aspagarus growing handbook	for Thaba Bosiu rural development project

Pamphlets (in Sesotho)

VD correspondence lesson Child diseases correspondence lesson Flip chart Posters Photo strips	for Lesotho Family Planning Association
What is the Census	a booklet for the Bureau of Statistics
TB leaflets	for Scott Hospital
TB leaflets	for Health Education Unit
Your House and Mine — Our Village	a book for Leh Co-op (also in English)
Plant Beans and Make Money	for Senqu Agricultural Project
Maths revision booklet Career guidance handbook	for Ministry of Education
Science booklets	for NTTC
2 standard talks Assorted posters	for CRS
Assorted posters	for Interministerial Committee on Road Safety

Student support (in English)

JC book-keeping	1-7
JC agricultural science	1-7
JC Sesotho (language)	1-8
JC Sesotho (literature)	1 2 (1979)
JC introductory English	1-7
JC English main course	1-7
JC English literature	1 2 (1978) 1 2 (1979)
JC modern mathematics	1-15
'O' level modern maths	1-4
'O' level modern maths (new course)	1-6
'O' level geography	1-3

Student Newsletter: August and November 1976; March, July and August 1977; May and September 1978

Prospectus 1976, 1977, 1978, 1979

Students Handbook 1978

Radio notes: *Poetry 1979; Animal Farm; The Rebel; The Pearl; Climbie* and *Old Mali and the Boy*

Radio notes: 'O' level mathematics, programmes 1-18

Rural education booklets in Sesotho

CRS Cookery Book
Red Cross First Aid Book
How to Crochet
Vegetable Growing
Expecting a Baby
Child Care
Literacy and numeracy (in Sesotho)

Literacy workbooks	1 2
Numeracy workbooks	1 2
Games materials	(a) Ho bala le ho ngola
	Mataese a linoko
	Likarete tsa linoko
	Leeto
	Likarete tsa 'Maqeta-qeta mantsoe pele'
	Mojaho
	(b) Lipalo
	Majoe
	Mabokose a mollo
	Mataese a lipalo
	Likarete tsa lipalo
	Likarete tsa 'Reka'
	Likarete tsa lipalo tse sebetsang
	Ntoa

Appendix C: Research reports (up to July 1979)

Testing a Recipe Booklet: An Experiment with a Self-completed Questionnaire, May 1975
Poultry-keeping in Rural Lesotho, October 1975
Clothes-making in Rural Lesotho, October 1975
Do People Read Leaflets?, October 1975
An Experiment with Educational Radio Spots, January 1976
The Use made by Nurses of the CRS Cookery Book, May 1976
Understanding Print, July 1976
A Test of the Best Way to present a Correspondence Lesson, October 1976
Family Planning Pamphlet: Pre-test Evaluation, December 1976
Study Habits/How to Study Survey, December 1976
Child Care KAP Study, December 1976

Evaluation of TBRDP/LDTC Training and Support Programme for VDPAs, December 1976
Estimates of Reception and Listenership to Radio Lesotho, January 1977
Readability Measurement, January 1977
Survey of Private Candidates, February 1977
Listenership to Radio Broadcasts among Secondary School Students, February 1977
Progress of Lesotho Distance Teaching Centre Correspondence Students in 1976, February 1977
CRS Booklet Evaluation, February 1977
Evaluation of a VDPA Training Course, February 1977
Attitudes towards Family Planning, May 1977
Learning Games, June 1977
Distance Teaching and Road Safety, June 1977
Pre-testing a Sesotho Lesson, July 1977
The Use of Photo Strips in Family Planning Education, October 1977
Survey of Knowledge and Attitudes towards Leprosy in Lesotho, November 1977
Road Safety Campaign, April 1978
Lesotho Family Planning Association Volunteer Training Course, May 1978
Progress of Lesotho Distance Teaching Centre Correspondence Students in 1977, June 1978
Learning from a Booklet: An Experiment with Individuals and Groups, July 1978
Reading, Writing and Arithmetic in Lesotho, August 1978
The Mathematics Knowledge of a Successful JC Candidate, October 1978
Survey of the Rankakala Project Area, October 1978
An Alternative Method for Testing Formal Course Material, November 1978
Evaluation of Week-end Course Support for Private Candidates, January 1979
Literacy and Numeracy for Life, January 1979
Evaluation of Radio Support for Private Candidates, January 1979
Land Tenure Survey, April 1979
Teaching Prisoners to Read, Write and do Arithmetic, April 1979
Listenership to Radio Lesotho and the Potential for Open Educational Broadcasting, May 1979
Student Progress — 1978, July 1979
Evaluation of Education for Family Planning, July 1979
Learning to Read, Write and do Arithmetic in Village Groups, July 1979

Note: Most of these reports are available from the Centre for the cost of postage. *Understanding Print*, *Attitudes towards Family Planning*, *Learning Games* and *Reading, Writing and Arithmetic in Lesotho*, however, each cost M3 in addition to postage.

IEC Broadsheets on Distance Learning

All enquiries about titles in the series should be sent to International Extension College, 18 Brooklands Avenue, Cambridge CB2 2HN, England.

Rural education

Multimedia approaches to rural education, Tony Dodds, 1972
Voices for development: the Tanzanian national radio study campaigns, Budd L. Hall and Tony Dodds, 1974
Seeking the barefoot technologist, International Extension College, 1978
Bokaa: living and learning in an African village, Kunnie Kooijman, 1980

Techniques of distance teaching

The techniques of writing correspondence courses, Hilary Perraton, 1973
Technical education at a distance, Jenny Fakes, 1973
Correspondence teaching at university, Judy El-Bushra, 1973
Training teachers by correspondence, Peter Kinyanjui, 1974
Editing distance teaching texts, Janet Jenkins, 1976
Teaching science at a distance, John arap Siele and Gerry Hacker, 1977

Case studies

The Mauritius College of the Air: the first two years, Tony Dodds, 1973
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